
**CHELAN AND DOUGLAS COUNTY PROFILE
AUGUST 1998**

Labor Market and Economic Analysis Branch
Employment Security Department

This report has been prepared in accordance with
RCW 50.38.050.

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INTRODUCTION

This report profiles the labor and economic characteristics of Chelan and Douglas counties. It was prepared by the Labor Market and Economic Analysis (LMEA) Branch of the Washington State Employment Security Department and is one in a series that profiles labor market and economic conditions in each of Washington's 39 counties.

The profile is designed to assist state and local planners in developing local economic strategies. It is also an effective tool for answering labor market and economic questions frequently asked about the county. Readers with specific information needs should refer to the *Table of Contents* or to the *data appendix* to more quickly access those sections of particular interest to them.

Like the earlier Chelan and Douglas County Profile of October 1994, the purpose of this report is to provide a

comprehensive labor market and economic analysis of Chelan and Douglas counties. Characteristics profiled include the following:

- physical geography, economic history, and demographics
- labor force composition and trends
- industries, employment, and earnings
- skills and occupations
- economic development and job training

Much of the information in this report is regularly updated on the LMEA Internet homepage. The homepage contains current and historical labor market information which can be accessed by area or by type of information. The site address is:

<http://www.wa.gov/esd/lmea>

Any inquiries or comments about information in the profile should be directed to the Labor Market and Economic Analysis Branch.

GEOGRAPHY

Chelan County is situated roughly on the eastern crest of the Cascade Mountain Range (the divide between central and western Washington). It is bounded by Skagit, Snohomish, and Kittitas counties to the northwest and south, and parts of Okanogan and Douglas counties to the northeast and southeast.

Comprising a geographic area of 2,915 square miles, Chelan is the third largest county in Washington State. As such, it represents 4.4 percent of the state's entire land mass.

Roughly 90 percent of the county's geographic area is in the Wenatchee National Forest (the county's northern peak, though, is part of the North Cascades National Park). The bulk of the topography is dominated by dense, rugged, and mountainous terrain. Some of the higher elevations within the county are Mount Stuart (9,415 feet) and Cashmere Mountain (8,520 feet) in southern Chelan County, and Clark Mountain (8,576 feet) and Pyramid Mountain (8,245 feet) in north central Chelan County. The remaining area is in low-lying valleys.

Because of its higher elevations, Chelan County gets its share of water runoff from precipitation and melting snow. Runoff from the western parts of the county form the Chiwana, White, and Little Wenatchee rivers, all of which flow southeast before feeding into Lake Wenatchee. The Wenatchee River continues from there, flowing further southeast to join the Columbia River near the city of Wenatchee. Most impressive, however, is 55-mile long Lake Chelan. The lake is known to run to depths of 1,500 feet (400 feet below sea level).

Douglas County is situated in north central Washington and comprises a total land mass of 1,817 square miles (2.7 percent of the state's total land mass). As such, Douglas County ranks 17th in size among Washington counties.

Douglas County is bounded to the north by Okanogan County and to the west and southwest by Chelan County. This irregular border is delineated by the Columbia River, which separates the county from its neighbors. It is bounded to the east and southeast by Grant County. The greater part of this boundary roughly mirrors Banks Lake—the former path of the Columbia River.

The western extension of Douglas County—where it is fronted by the Columbia River—is one of hills and canyons. It is there that the terrain begins to merge with the foothills of the east slope of the Cascade Mountain Range. This terrain, particularly that around East Wenatchee, is especially conducive to tree fruit production. The central and eastern parts of Douglas County are composed of rolling hills and flat open land. This area is most suitable for wheat and other grains.

Among the county's major tributaries are Douglas Creek, East and West Foster Creek, McCarteney Creek, and Rock Island Creek (not to mention the Columbia River). Among the county's major lakes are Lake Entiat, Lake Pateros, and Rufus Woods Lake, all of which were formed by backwaters from dams on the county's western border. Grimes Lake and Jameson Lake are two others, both in the county's interior.

ECONOMIC HISTORY

Chelan County. The county's name means deep water—the Indian term for the large lake that dominates the northeast portion of the county. The county was established in March of 1899 after being partitioned from what were then sections of Okanogan and Kittitas counties. Passed by the state legislature, the bill was signed by Governor John R. Rogers.

Early in the history of the region, Native Americans hunted and gathered as they migrated across its plains. However, they established no settlements. The first whites to enter the county were fur traders and Catholic missionaries who arrived in the early 1800s. Settlers, however, were few and far between.

During the late 1800s and early 1890s, the railroads were established as the first major industry in what would soon be Chelan County. Construction of the railroads (the Northern Pacific in 1881 and the Great Northern in 1892) required a sizable pool of labor, many of whom were Chinese.

As the track-laying progressed, many Chinese ventured out to the surrounding countryside to try their hand at prospecting. Discovering gold at Sauk Creek, near what is now the Blewett Pass Highway in south Chelan County, the Chinese were displaced when white prospectors rushed into the area. The same thing occurred down the pass at the Columbia River. The Chinese discovered gold, another rush materialized, and white prospectors muscled out the Chinese. Eventually, the Blewett Mining and Milling Company was established to exploit the mineral deposits.

The completion of the railroads spurred heavy migration into the region, especially by easterners and Midwesterners, and resulted in the establishment of numerous mining towns. In 1888, the population boom convinced the Washington Territorial Legislature to carve Okanogan County out of Stevens County (Chelan County would be created 11 years later by subdividing Okanogan County).

Settlements sprang up near Lake Chelan as well as along the Entiat River and other tributaries which fed into the Columbia River. Their locations created a difficult jurisdictional situation; those with county business had to travel, first by boat across the Columbia River, and then by stage or horseback to the county seat at Conconully—a two to five-day journey. This being unre-

alistic, parts of Okanogan and Kittitas counties were partitioned to form Chelan County in the spring of 1899. There were roughly 2,000 residents countywide.

Many new arrivals came to farm rather than to seek gold and minerals. Perhaps more by chance than by design, apples and other tree fruit were introduced by early settlers who brought saplings primarily for their personal use. However, the trees took particularly well to the semi-arid climate and soil and soon nurseries were being set up in the region.

The first commercial apple orchard in Chelan County is believed to have been planted sometime in the early 1880s with others soon following. The apple production industry expanded steadily over the next 20 years, in large part because of the irrigation ditches and canals that were constructed to supply more and more water to the orchards. By the turn of the century, other water resource projects were underway. In 1902, the massive Highline Canal was carved down the middle of the Wenatchee Valley (it even extended across the Columbia River into Douglas County). This irrigation network laid the foundation for agricultural development in the Wenatchee Valley. In time, tree fruit production—namely apples—came to dominate the county's industrial base.

Apple production had become the foundation of Chelan County's economy. Annual production levels during the 1950s were between 16,000 to 22,000 railroad carloads, requiring an annual employment payroll of approximately \$20 million. The apple growers in east Wenatchee got their irrigation system in 1963 when the Greater Wenatchee Irrigation Project was completed. Apple production remains the foremost local industry to this day. Moreover, if one takes into account the complementary industries fostered by apple production, the total payroll resulting from apple production climbs even higher.

Among these complementary industries were apple packing and controlled atmosphere (cold) storage. In the early days of the apple industry, growers used to pack their own apples. By 1926, however, federal Food and Drug Administration packing standards—particularly as they concerned washing apples to remove lead arsenic pesticide residue—made it more economically feasible for task-specific companies to do the packing. Until the 1960s, this process involved mechanically washing and

drying the apples, hand-removing the bad ones, and manually sorting the rest by size and packing them for shipment. Today, this is a predominantly mechanical process. Although cull apples are still removed manually, sorting the apples by size, weight, and color is done by machines with electronic sensors.

Since the early 1900s, many of the apples to be packed have been kept in controlled atmosphere storage. This process has advanced greatly over the years as scientific and technological know-how increased. Today, the process involves sealing the apples for a minimum of 90 days in a 32 degree chamber which contains less than 5 percent oxygen and virtually no carbon dioxide at roughly 90 percent humidity. The quicker the apples are transferred from the orchards to the chamber the better.

Of the complementary industries, apple processing was to have the largest impact. Prior to 1915, orchardists simply dumped their cull (i.e., blemished or deformed) apples into the Columbia River. In 1916, however, George F. Miller, a Chelan businessman, decided to purchase these apples from local orchardists—an idea the growers warmed to quickly—and sell them to juice processing and fruit canning operations, mainly based in the Puget Sound region.

After watching thousands of tons of cull apples leave for Puget Sound, Miller and some associates decided that Wenatchee should also profit from the booming trade. In 1925, the group financed the building of Wenatchee Packing Corporation (now known as Wenatchee Canning Company), the first fruit cannery established in Chelan County. In the 1940s, the Valley Evaporating Company started up in Chelan. And in the 1960s, the Chelan Packing Company (or Chelan Pack) became a major purchaser of cull apples for juice processing. It was sold in the mid-1970s to Tree Top, which today is among the nation's largest producers of apple juice and other products, and is also one of the county's largest employers.

Douglas County. Native American Indians were the first known peoples to inhabit the region that is now Douglas County. The principal tribe from the area was the Colville, once one of the largest tribes in the northwest. A semi-nomadic people, the Colville made their trek across the Douglas County region during salmon fishing seasons. Their access to this region was cut off after they signed the Medicine Creek Treaty of 1855. Thereafter, they were confined largely to the northeast region of Washington State.

Fur trappers and traders were among the first whites to explore what would become Douglas County. They

were known to have made their way through the region as early as the 1860s. However, they kept few written notes so there is little record of their day-to-day activities. Few of these persons settled in the county, especially after they had exhausted the local beaver and otter populations.

The lure of gold in the 1870s brought some of the first settlers into Douglas County as prospectors rushed in to claim land in what is now north central Washington. Much of the prospecting and mining activity was concentrated around rivers and streams that flowed down from the Cascades and fed into the Okanogan and Columbia rivers.

The first U.S. Government survey of the Douglas County region was undertaken in 1880. The report characterized the Douglas County region as largely suitable for agriculture. The first large group of settlers arrived in 1883, most of them cattlemen or sheep ranchers.

Such was the influx that the county of Douglas was created by the territorial legislature on November 28, 1883. The new county, encompassing present-day Douglas and Grant counties, was created by partitioning what was formerly Lincoln County. The legislation was signed by Territorial Governor W.A. Newell.

The town of Waterville was one of the first large settlements in the new county. The town, which would become the seat of county government, was built on the fortunes of the livestock industry. Though prosperous trade and service industries emerged, both were closely tied to the larger agricultural community.

In 1886, a bitter range war erupted between sheep and cattle ranchers. In the ensuing conflict, the sheep ranchers (who had arrived first) were eventually driven off the range by cattle ranchers. The conflict became all but mute after the winter of 1889-90.

That winter stands as one of the harshest on record. The livestock industry, at that time the county's largest and most profitable industry, was hit especially hard. It was virtually wiped out; hundreds upon hundreds of cattle died from exposure or starvation.

Local ranchers and other residents had to seriously reconsider the future of stock-raising as the foundation of their economy. In the spring of 1890, the county purchased and planted wheat seed. With that, the county's economic base shifted from livestock production to grain production (livestock remained a significant, though less vital, industry).

The tree fruit industry in Douglas County got a relatively late start compared to other local agricultural pur-

suits. Production in Douglas County followed in the wake of Chelan County's success. In Douglas County, the industry was concentrated along the county's lower western border where rich and fertile silt near the banks of the Columbia River made the land particularly suitable for fruit production.

In time, the city of Wenatchee in Chelan County became known as the Apple Capital of the World. Just across the river in East Wenatchee, apples also became the chief product of Douglas County's tree fruit industry. However, other fruits such as sweet cherries, pears, peaches, apricots, nectarines, and plums also did well.

Prosperity in the county's tree fruit industry soon gave rise to population growth in the city of East Wenatchee, once an extension of the city of Wenatchee in Chelan County. However, as the population east of the Columbia rose, East Wenatchee became a separate municipality. Just as the city of Waterville was dependent on the county's grain industry, East Wenatchee was dependent on the county's fruit industry. These two industries more or less dominated the county economy until the 1930s when hydroelectric power diversified the local economy. Today, the Douglas County economy, in terms of employment, continues to be based largely on tree fruit production and local and federal government. Silicon metal manufacturing is the largest manufacturing industry in the county.

The Dams. No story of the area would be complete without mentioning the development of hydroelectric power in the region. The Columbia River delineates more than one-half of Douglas County's boundary. Along that path lie five major dams: Grand Coulee, Chief Joseph, Wells, Rocky Reach, and Rock Island. While dam

construction swelled regional employment only temporarily, the day-to-day operation and maintenance of dams has meant a stable source of jobs and the availability of low-cost electricity has been a boon to economic development.

In the earliest days of the Great Depression, the local area and Washington State received a needed economic boost in the form of the Grand Coulee Dam project. The dam site was surveyed in 1929 with work getting underway by 1933. When completed in 1941, Grand Coulee Dam was the nation's largest producer of hydro-power. This distinction was reinforced when its capacity was doubled by a third powerhouse in 1975. Grand Coulee Dam is run by the U.S. Bureau of Reclamation and has a maximum generating capacity of 6,494,000 kilowatts.

Sixty miles down river from Grand Coulee near Bridgeport is Chief Joseph Dam (1955, Army Corps of Engineers, 2,686,800 kilowatts). Twenty-five miles further down river and also in the north county is Wells Dam (1967, Douglas County P.U.D., 774,300 kilowatts).

Rocky Reach Dam (1961, Chelan County P.U.D., 1,213,150 kilowatts) is less than 10 miles north of East Wenatchee, while Rock Island Dam (1933, Chelan County P.U.D., 622,500 kilowatts), the oldest in the region, sits roughly 15 miles south of East Wenatchee.

Construction and maintenance of the dams and hydroelectric plants as well as the marketing of electricity account for a substantial share of local jobs. Without a doubt, jobs created by the U.S. Army Corps of Engineers, Bonneville Power Administration, and the counties' public utility districts have added stability to the local economy.

POPULATION

The Office of Financial Management has estimated the 1997 population of Chelan and Douglas counties at 62,200 and 30,800, respectively. Chelan and Douglas rank as the 17th and 25th largest counties in Washing-

ton State. The last actual head-count was the 1990 Census when the population was 52,250 in Chelan and 26,205 in Douglas.

Trends

Population changes normally are viewed as important economic indicators because people tend to follow jobs. Since 1970, population growth in both counties has been relatively strong, the exceptions being during periods of national recession (see Figures 1 and 2). The recessions of the early 1970s and early 1980s actually caused population declines for brief periods. However, the most recent recession of 1990-91 didn't seem to have any effect on Chelan County and only slightly slowed the growth in Douglas County.

For the period 1970-97, the population in Chelan County grew 51 percent (from 41,103 to 62,200). The county's growth was slightly less than the 64 percent recorded for the state: 1.5 percent versus 1.9 percent on an annualized basis. Douglas County's population for the 1970-97 period swelled by 83 percent (from 16,787 to 30,800) with an annualized growth rate 2.2 percent. Figure 3 shows the population indexed to 1970=100 and compares the two counties and Washington.

Figure 1
Population Trend
Chelan County, 1970-1997
Source: Office of Financial Management

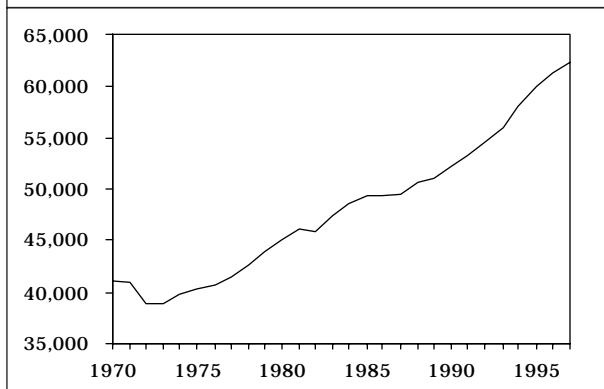


Figure 2
Population Trend
Douglas County, 1970-1997
Source: Office of Financial Management

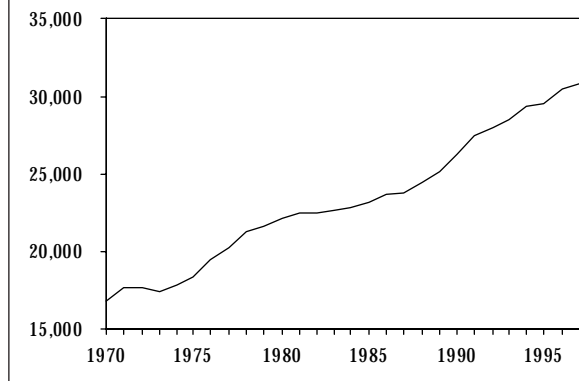
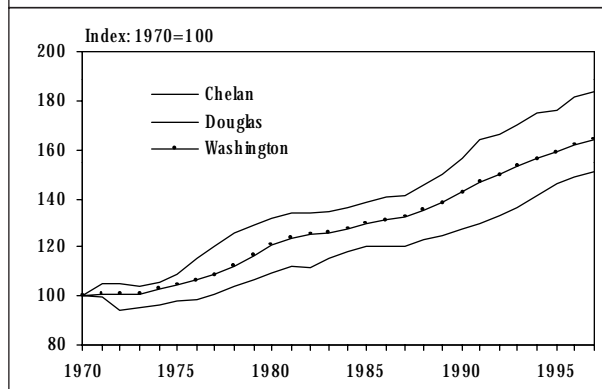


Figure 3
Population Trend
Chelan, Douglas, & Washington, 1970-1997
Source: Office of Financial Management



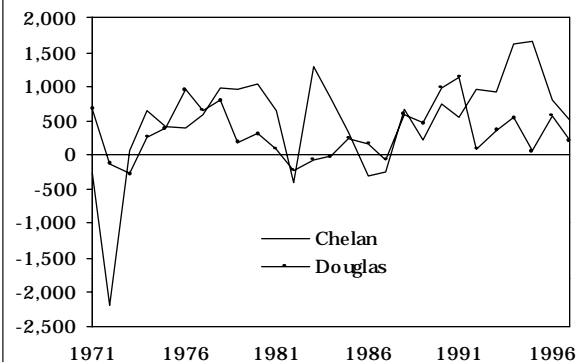
Components of Population Change

Two reasons cause population change in an area. One is the natural change: births and deaths. Significant changes to the natural rate are normally associated only with major socio-economic occurrences such as the Great Depression and the aftermath of World War II (the baby boom), both of which resulted in significant changes in the birth rate. The other cause of population change is migration, which is usually induced by economic change and job opportunities.

Since 1970, Chelan County experienced a natural population increase of 7,770—the net increase resulting from births and deaths. Net migration of 13,327 almost doubled the natural increase, creating a total population gain of 21,097. Douglas County's population growth was very similar to Chelan County except on a smaller scale—the ratio of natural change to migratory change was about the same. There was a natural increase of 5,083 and net migration added 8,930. The overall gain was 14,013.

Figure 4 shows net migration from 1971 through 1997 in Chelan and Douglas counties. Comparing it to the population charts, it is easy to see that migration was the cause of the population decreases during the recessionary periods.

Figure 4
Net Migration
Chelan & Douglas Counties, 1971-1997
Source: Office of Financial Management



Populated Areas

In 1997, more than half of Chelan County's 62,200 residents lived in incorporated areas while 45 percent lived in unincorporated areas. However, population growth in the unincorporated areas has been greater (see Figure 5 on the next page). Entiat, the smallest municipality in the county, was the fastest growing since 1990. Cashmere was the slowest growing and Wenatchee, the largest city, grew about 15 percent.

Most of Douglas County's residents live in unincorporated areas. Over two-thirds are outside the city limits. But the strongest population growth in recent years has been in incorporated areas. Most of that growth derives from exceptionally strong population increases in East Wenatchee, the county's largest city, whose population expanded by 54 percent since 1970.

Population by Age Groups

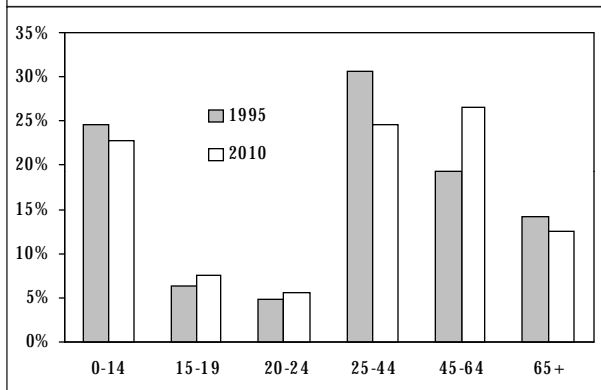
The population distribution among various age groups as well as the changes in this distribution over time show the population aspects not revealed by the overall numbers. Figures 6 and 7 on the next page categorize the population of Chelan and Douglas counties by age group share size. There are estimates for 1995 and projections for 2010. These age groups are significant if we make the following assumptions:

- 0-14 = Infants or adolescents a decade or two removed from the labor force
- 15-19 = Prospective new entrants into the labor force, except college students
- 20-24 = New entrants into the labor force, except college students
- 25-44 = Workers in their prime years of work
- 45-64 = Mature workers with years of accumulated skills and experience
- 65+ = Retirees

Figure 5
Population of Cities, Towns, and Counties
April 1, 1990 to April 1, 1997
Source: Office of Financial Management

	1990	1991	1992	1993	1994	1995	1996	1997	% Chg 1990-97
Chelan County	52,250	53,200	54,600	56,000	58,000	60,000	61,300	62,200	19.0%
Unincorporated	22,760	23,398	24,058	24,975	26,115	27,300	27,865	27,939	22.8%
Incorporated	29,490	29,802	30,542	31,025	31,885	32,700	33,435	34,261	16.2%
Cashmere	2,544	2,550	2,560	2,585	2,660	2,670	2,715	2,720	6.9%
Chelan	2,976	3,027	3,077	3,150	3,200	3,230	3,255	3,350	12.6%
Entiat	449	450	455	465	545	555	675	801	78.4%
Leavenworth	1,692	1,705	1,750	1,825	2,020	2,065	2,100	2,230	31.8%
Wenatchee	21,829	22,070	22,700	23,000	23,460	24,180	24,690	25,160	15.3%
Douglas County	26,205	27,500	27,900	28,500	29,300	2,600	30,400	30,800	17.5%
Unincorporated	19,958	19,997	20,280	20,702	21,391	20,746	21,067	21,176	6.1%
Incorporated	6,247	7,503	7,620	7,798	7,909	8,854	9,333	9,624	54.1%
Bridgeport	1,498	1,510	1,575	1,640	1,705	1,725	2,053	2,060	37.5%
Coulee Dam <i>part</i>	218	203	210	218	209	209	210	210	-3.7%
East Wenatchee	2,701	3,910	3,920	3,970	4,010	4,850	4,975	5,245	94.2%
Mansfield	311	340	360	365	365	370	375	375	20.6%
Rock Island	524	530	540	550	555	585	600	625	19.3%
Waterville	995	1,010	1,015	1,055	1,065	1,115	1,120	1,109	11.5%

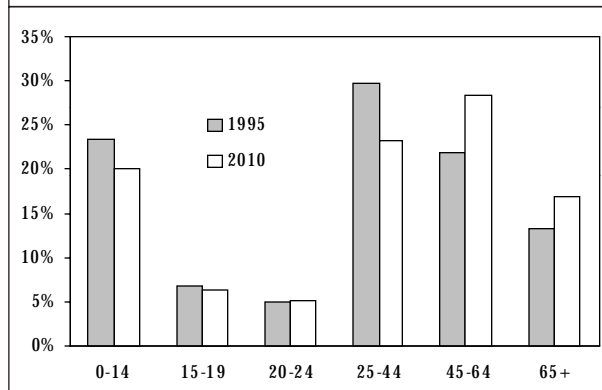
Figure 6
Percent of Population by Age Group
Chelan County, 1995 and 2010
Source: Office of Financial Management



Most notable is the decrease in the share size of the 25-44 age group (in the context of overall population, the decline is significant) and the very large increase in the 45-64 age group. This is occurring in both counties. The population is aging and this will have significant consequences in the future.

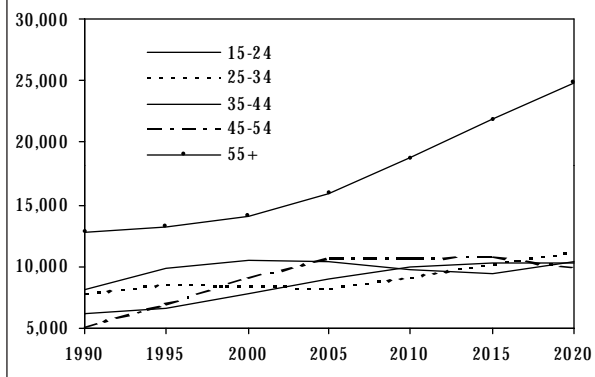
Figures 8 and 9 on the next page show the population subsumed into somewhat different groups and

Figure 7
Percent of Population by Age Group
Douglas County, 1995 and 2010
Source: Office of Financial Management



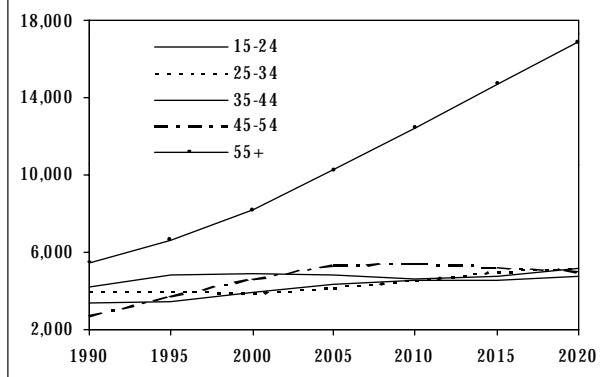
project their numbers (as opposed to share size) out to 2020. The 55 and older group is the largest group and is also the fastest growing group. If the trend materializes as projected, variations of this scale will bring change of a major magnitude. These aging baby boomers—that very numerous generation born between 1946 and 1964—are moving toward retirement age. This will have large scale effects upon Social Security and the provi-

Figure 8
Population by Age Group
Chelan County, 1990-2020
Source: Office of Financial Management



sion of health care services, just to name two areas where significant change must occur. This trend is occurring at about the same rate at the state and national levels.

Figure 9
Population by Age Group
Douglas County, 1990-2020
Source: Office of Financial Management



Demographics

Whites may be the largest racial group in Chelan and Douglas counties, but the proportion of non-whites is increasing at a much faster pace than whites. From 1990 to 1996, Chelan County's general population grew 17 percent. The number of whites grew 17 percent; the number of non-whites, 56 percent. During the same period, Douglas County's general population grew 16 percent while whites grew 15 percent and non-whites 49 percent. Even so, non-whites are a relatively small percentage of both counties' population.

In 1996, whites numbered 59,689 or 97 percent of the total population for Chelan County and 29,714 or 98 percent of the total population for Douglas County. Non-whites constituted 3 percent and 2 percent, respectively. Statewide, whites comprised 88 percent of the population and non-whites 12 percent. *Figure 10* on the next page gives the numbers and percentages for the various racial groups and for those of Hispanic origin.

Figure 10
Population by Race and Hispanic Origin
Chelan, Douglas, and Washington, 1990 and 1996
Source: Office of Financial Management

	Census 1990		Estimates 1996		1990-1996 % Change
Chelan County					
Total	52,250	100.0%	61,300	100.0%	17.3%
White	51,214	98.0%	59,689	97.4%	16.5%
Non-white	1,036	2.0%	1,611	2.6%	55.5%
Black	87	0.2%	143	0.2%	64.4%
Indian/Aleut	549	1.1%	766	1.2%	39.5%
Asian/Pac Islander	400	0.8%	702	1.1%	75.5%
Hispanic Origin*	4,786	9.2%	9,834	16.0%	105.5%
Douglas County					
Total	26,205	100.0%	30,400	100.0%	16.0%
White	25,745	98.2%	29,714	97.7%	15.4%
Non-white	460	1.8%	686	2.3%	49.1%
Black	50	0.2%	86	0.3%	72.0%
Indian/Aleut	232	0.9%	305	1.0%	31.5%
Asian/Pac Islander	178	0.7%	295	1.0%	65.7%
Hispanic Origin*	2,721	10.4%	5,366	17.7%	97.2%
Washington					
Total	4,866,692	100.0%	5,516,800	100.0%	13.4%
White	4,411,407	90.6%	4,872,813	88.3%	10.5%
Non-white	455,285	9.4%	643,987	11.7%	41.4%
Black	152,572	3.1%	191,296	3.5%	25.4%
Indian/Aleut	87,259	1.8%	109,766	2.0%	25.8%
Asian/Pac Islander	215,454	4.4%	342,925	6.2%	59.2%
Hispanic Origin*	214,570	4.4%	337,706	6.1%	57.4%

**Hispanic origin can be of any race*

CIVILIAN LABOR FORCE

The resident civilian labor force is defined as all persons 16 years of age and older within a specified geographic area who are either working or actively seeking work. This excludes those serving in the armed forces or institutions, nor does it count "discouraged workers," those who would like to work but who have quit looking because of no success. Like the general popula-

tion, the labor force can be seen as a key economic indicator. Since gross domestic product and gross state product are not gathered at the county level, labor force changes and other measures can serve as substitutes for these economic indicators. In 1997, the labor force in Chelan County was estimated at 35,240; in Douglas County at 19,250.

Trends

Separate labor force estimates for Chelan and Douglas counties have only been available since 1978. Prior to 1978, the two labor force estimates were combined.

Chelan County's labor force experienced a net growth of 43 percent between 1978 and 1997. Uneven and fitful growth characterized the period from 1978 through the mid-1980s. Two national recessions in the early 1980s had a strong impact on the size of the labor force. Since 1988, though, growth has been strong and relatively consistent except for a few slight stutters when growth paused briefly. *Figure 11* shows the numerical growth of the county's labor force since 1978 and *Figure 12* shows the labor forces of the two counties and the state indexed to 1978=100. The overall growth rate for Chelan County has been less than the state or Douglas County. The labor force data are based on place of residence which mirrors the Chelan-Douglas population dynamics.

Figure 11
Civilian Labor Force
Chelan County, 1978-1997
Source: Employment Security Department

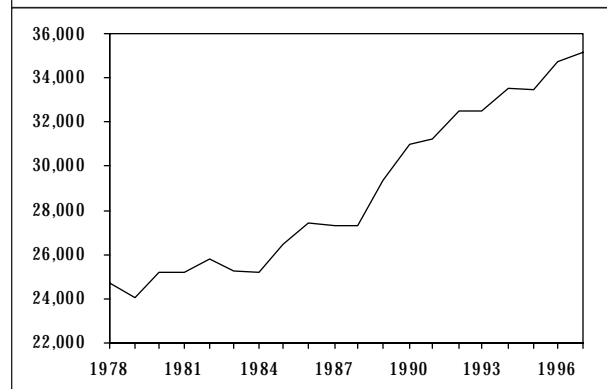


Figure 12
Civilian Labor Force
Chelan, Douglas, & Washington, 1978-1997
Source: Employment Security Department

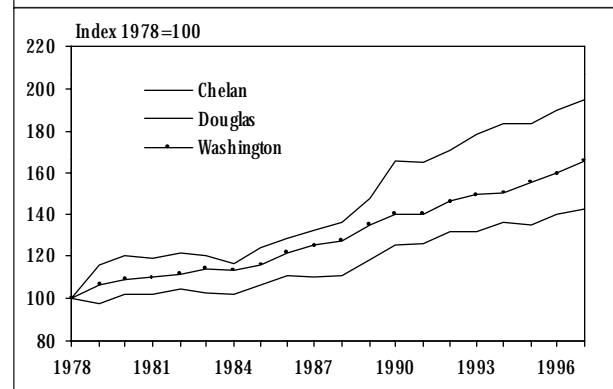
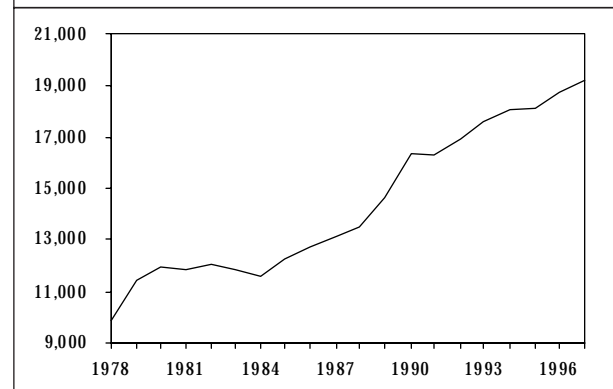


Figure 13
Civilian Labor Force
Douglas County, 1978-1997
Source: Employment Security Department



Over the same period, 1978-97, Douglas County's labor force grew from 9,890 to 19,250, a 95 percent increase (see *Figure 13 on the previous page*). Growth was strongest during the 1980s after the "double-dip" national recessions during the early part of that decade. From 1984 to 1990 there were close to 5,000 additions

to the labor force. The 1990-91 recession stunted growth briefly but since then, the labor force increased by another 3,000. Growth of the labor force in Douglas County has handily outpaced Chelan County and Washington, particularly since the late 1980s.

Demographics

The labor force composition, in general, equates to the composition of the general population. Estimates by Employment Security Department analysts for 1996 are shown in *Figure 14*. All of the racial groups shown in the table are smaller in the two counties than they are statewide. This is caused by the large number of Hispanics in the area—in this enumeration, those of Hispanic origin are not also counted in the racial groups. The size of a racial group, therefore, is diminished by the num-

ber of that race who are of Hispanic origin. In Chelan County, about 15 percent of the labor force is of Hispanic origin and in Douglas County, the figure is 18 percent, much greater than the state's share.

Women make up a smaller proportion of the work force in the two counties than men, with Douglas having fewer, proportionally, than Chelan County. Both counties have smaller proportions than statewide.

Figure 14
Resident Labor Force by Sex and Minority Status
Chelan, Douglas, and Washington, 1996 Annual Averages
Source: Employment Security Department

	Chelan		Douglas		Washington	
	Labor Force	Percentage	Labor Force	Percentage	Labor Force	Percentage
Total	34,630	100.0%	18,350	100.0%	2,887,000	100.0%
White	28,730	83.0%	14,560	79.3%	2,464,000	85.3%
Black	80	0.2%	30	0.2%	81,000	2.8%
Native American	460	1.3%	220	1.2%	42,900	1.5%
Asian & Pacific Islander	290	0.8%	130	0.7%	157,400	5.5%
Hispanic	5,070	14.6%	3,400	18.5%	141,600	4.9%
Female Percent of Total	15,080	43.5%	7,370	40.2%	1,298,200	45.0%

All races exclude those of Hispanic origin, as Hispanic is indicated as a separate group.

Race estimates are based on 1990 Census and 1996 population data from the Office of Financial Management.

Detail may not add to indicated totals because of rounding.

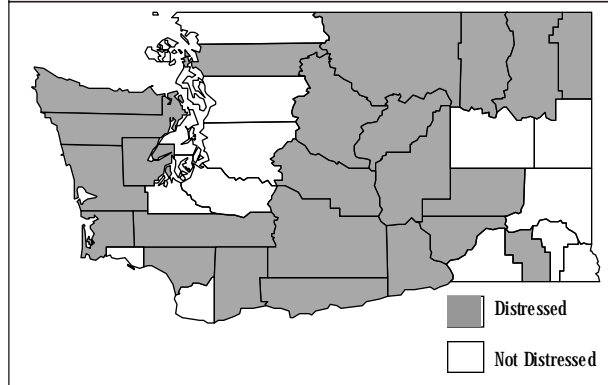
UNEMPLOYMENT

As mentioned earlier, the civilian labor force consists of those who are working and those who are not working but are looking for work. The unemployment rate is the percentage of the total labor force who are not working but who are actively looking for work. The unemployed do not include retirees, persons in institutions, or those who have come to be known as “discouraged workers,” i.e., persons who would like to work but who are not actively searching for a job. None of these groups of people are included in the unemployment figures because they are not actively looking for work.

At the national level, the unemployment rate is determined by a regularly recurring survey of households. At the local level, the state’s portion of this household survey is integrated and merged with other information (e.g., unemployment insurance claims and surveys of business establishments) to produce unemployment rates for the state and sub-state (i.e., county) level.

Figure 15 shows the counties in Washington that are considered to be distressed, that is, having unemployment rates 20 percent higher than the statewide

Figure 15
Distressed Counties
Washington State, 1997
Source: Employment Security Department



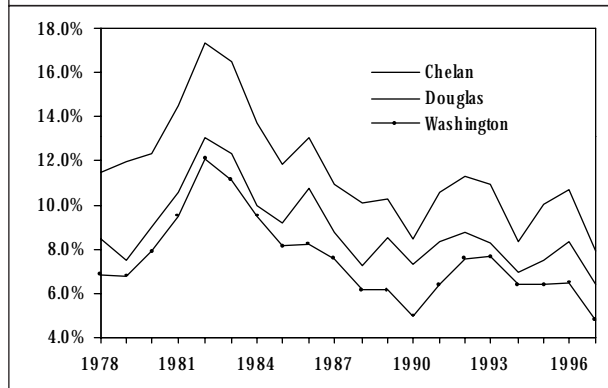
average for three consecutive years. Chelan and Douglas counties are both classified as distressed counties, making them eligible for some preference in bidding for government contracts and distressed area tax incentives for manufacturing.

Trend

Figure 16 shows the unemployment rates for Chelan and Douglas counties and Washington State since 1978. Unemployment in 1997 for both counties (and Washington) is the lowest it has been since at least 1978. Chelan’s rate was 7.9 percent, in Douglas it was 6.4 percent, and in Washington, 4.8 percent. The low rates are all associated with the strong national economy which has been growing unabated since the 1990-91 recession and, more specifically, with job growth in the two counties: 1996-97 the local area saw the biggest year-over-year increase since at least 1970.

Unemployment in the counties has trended downward, in general, since the very high rates of 1982, the height of the national “double-dip” recessions. Then, Chelan County had almost 4,500 residents unsuccessfully seeking work and Douglas County about 1,500. Although there have been both ups and downs since then, overall unemployment has declined rather dramatically since that time.

Figure 16
Unemployment Rates
Chelan, Douglas, & Washington, 1978-1997
Source: Employment Security Department



As the chart shows, the rates for both counties and the state rise and fall in tandem, indicating a strong linkage with each other. Unemployment in the counties waxes

and wanes almost simultaneously with the state, although at a higher level. While Douglas County's rate stays closer to the state's, a fairly large difference routinely appears between Chelan County and the state.

The unemployment rates for Chelan and Douglas counties when seen as annual averages (as presented

above), are somewhat misleading. Because of the predominance of agriculture and the seasonality of much of its employment, there are extremely wide fluctuations in employment and unemployment throughout the year.

Industrial Typology

A number of specific industries within Washington State have been defined as being seasonal, cyclical, or structurally mature. These designations relate to the level of variation in employment or to a decrease in employment over specific time periods. Because all three categories are reflective of employment instability or decline, the degree to which a county's economic base depends upon these industries reveals a tendency toward or away from unemployment.

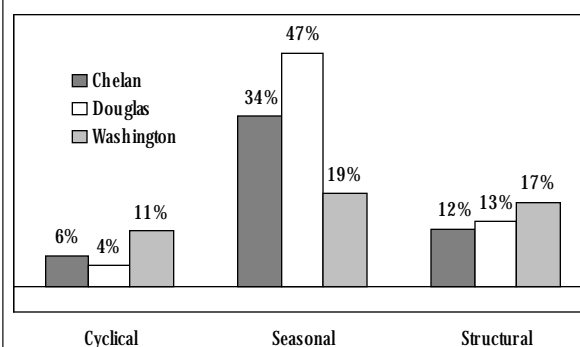
Note: An industry can be recognized in more than one typology. Construction, for example, is very dependent upon weather and is also highly sensitive to fluctuations in overall economic activity, i.e., the business cycle. It has been categorized as both seasonal and cyclical.

Industries with seasonal employment patterns are characterized by large employment increases and decreases in particular and recurring months of the year. Agriculture is a prime example. A seasonal industry is one in which the maximum variation between the highest and lowest monthly employment is about 19 percent or more of the industry's annual average employment.

Industries with cyclical employment patterns are characterized by sharp increases and decreases in employment during periods of general economic growth and contraction. The employment patterns are generally related to upswings and downturns in overall economic activity. A cyclical industry is one in which the total employment variation over a seven-year period is very high when compared to a straight-line trend projection for the same period.

Structurally mature industries are characterized by long-term declines in total annual average employment. These declines may be the result of increased productivity, automation, technological change, exhaustion of natural resources, or other factors. The structurally mature designation is determined by comparing two consecutive years of annual average employment against the two consecutive years that occurred seven years earlier.

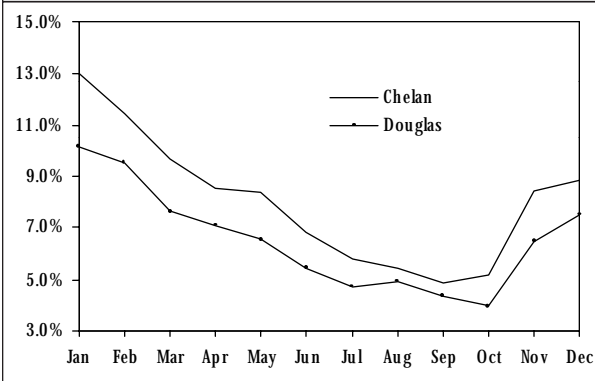
Figure 17
Industrial Typology
Chelan, Douglas, & Washington, 1996
Source: Employment Security Department



The number of workers employed in these type industries in Chelan and Douglas counties has been tabulated (*Figure 17 shows the percentages*). Both counties had smaller percentages of workers in cyclical and structural industries than did the state, but for all three, not a large share of workers are employed in these type industries. The big difference occurs with seasonal workers where the counties' percentages are much greater than the state's. The high level of seasonality, of course, stems from the agricultural base of the area's economy. Given these concentrations of employment, there should be extremely sharp fluctuations in employment and unemployment during the course of a year based on seasonality.

Figure 18 on the next page shows the variation in monthly unemployment for 1997 in both counties. While the annual average unemployment rate was 7.9 percent in Chelan County, the monthly rates ran from 13.0 percent in January to 4.8 percent in September. In Douglas County, unemployment ranged from 10.2 to 3.9 percent with an annual average rate of 6.4 percent. Unemployment declines after the agriculturally slack month of January until the trough is reached in June or July (apple

Figure 18
Monthly Unemployment
Chelan & Douglas Counties, 1997
Source: Employment Security Department



thinning time). It usually rises briefly, or flattens, in August only to drop again to its lowest point in September or October when the apple harvest occurs. Rising again after the harvest, unemployment rapidly increases until its peak is reached in January. This occurrence is a cycle that recurs year after year; it is inherent in labor intensive agricultural activities.

Unemployment Insurance Claims

When deriving unemployment figures, one of the key factors in the computation is the number of people who file claims for unemployment insurance benefits. *Figure 19* lists, by occupation rather than industry, the number of people who filed claims between July 1, 1996 and June 30, 1997, in Chelan and Douglas counties and Washington State.

The percentage of claims coming from the various occupational groupings in the counties (their percentages are remarkably similar) does not resemble the state-wide profile at all. The counties' largest percentage came from people involved in agricultural work (forestry and fishing occupations are minimal): about one-fourth of the total. Throughout the state 8 percent of all claims

Figure 19
Unemployment Insurance Claimants
Chelan, Douglas, and Washington, July 1, 1996 - June 30, 1997
Source: Employment Security Department

	Chelan		Douglas		Washington State	
	Claimants	Percentage	Claimants	Percentage	Claimants	Percentage
Agriculture, forestry and fishing	1,722	24.9%	671	22.2%	25,950	8.0%
Packaging and material handling	1,235	17.8%	518	17.2%	28,263	8.8%
Structural work	917	13.2%	413	13.7%	58,241	18.0%
Processing	719	10.4%	329	10.9%	16,134	5.0%
Service	622	9.0%	215	7.1%	35,927	11.1%
Clerical	525	7.6%	284	9.4%	38,118	11.8%
Professional/technical/managerial	463	6.7%	197	6.5%	54,030	16.7%
Motor freight and transportation	223	3.2%	152	5.0%	16,798	5.2%
Machine trades	160	2.3%	74	2.5%	16,753	5.2%
Sales	157	2.3%	93	3.1%	17,598	5.5%
Miscellaneous, NEC	120	1.7%	47	1.6%	5,503	1.7%
Benchwork	59	0.9%	24	0.8%	9,434	2.9%
Total	6,922	100.0%	3,017	100.0%	322,749	100.0%
White-Collar*	1,767	26.0%	789	26.6%	145,673	45.9%
Blue-Collar*	5,035	74.0%	2,181	73.4%	171,573	54.1%
*Miscellaneous/NEC occupations excluded						

came from this grouping. Following farm work, packing and material handling jobs, with around 18 percent of the total, far outstripped the statewide 9 percent. The next largest groupings in the counties were structural (construction) and processing jobs, each somewhat over 10 percent of the total. Service, sales, clerical, and professional claimants were all considerably less than their statewide counterparts.

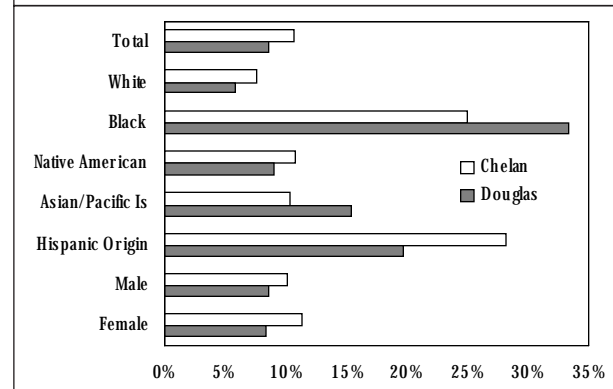
These differences contrast essentially agricultural economies with the statewide economy, which is driven by Puget Sound's high tech and aerospace industries. If the claimants are grouped, rather loosely, into white-collar and blue-collar categories, almost three-fourths of county claimants are blue-collar workers compared to slightly more than half statewide.

Demographics

Unemployment in Chelan and Douglas counties hits non-whites harder than whites (*see Figure 20*). Unemployment was lowest among whites and highest among blacks, although the rates among other non-white racial groups were also higher than for whites. Because the non-white racial groups are present in the labor force in very small numbers, the data may be of questionable reliability (analysts estimate that, out of a total of 5,280 unemployed in the two counties combined, there were 150 blacks, Native Americans, and Asian/Pacific Islanders).

Those of Hispanic origin, though, have a significant representation in the labor force and a very high unemployment rate—in both counties. Primary reasons for this are that the majority of Hispanics work in the agricultural industries, which traditionally have high unemployment rates. Exacerbating this are serious educational shortcomings: according to the 1990 Census, about two-thirds of Hispanics in Chelan County and three-fourths in Douglas County had less than a ninth grade education. Both of these factors contribute to the high unemployment level.

Figure 20
Unemployment by Race, Ethnicity, & Sex
Chelan & Douglas Counties, 1996
Source: Employment Security Department



There was no significant difference in unemployment between men and women. The rate was slightly higher for women in Chelan County and slightly higher for men in Douglas County.

INDUSTRIES, EMPLOYMENT, AND WAGES

Data in this section are derived through two different Bureau of Labor Statistics programs which are conducted in Washington by the Employment Security Department. The first, called CES (Current Employment Statistics), generates monthly nonagricultural employment figures; the second, the Quarterly Employment and Wages program (ES-202), includes data on both agricultural and nonagricultural employment covered under the state

unemployment insurance program. All wage data and agricultural employment data in this section stem from the Employment and Wages program; other employment information comes from the CES program.

Note: the CES nonagricultural data combine Chelan and Douglas counties; the information cannot be disaggregated.

Employment Trend

Figure 21 displays nonagricultural employment in Chelan-Douglas counties from 1970 to 1997. Since 1970, the area added 17,370 new nonfarm wage and salary jobs—the number increasing from 17,000 to 34,370—an increase of about 100 percent. By way of comparison, employment statewide increased by 133 percent during the same time period.

Actually, from 1970 to 1978, employment growth in the counties matched or surpassed that of the state as a whole (*see Figure 22* which indexes employment to 1970=100 and compares the counties to Washington). The “double dip” recessions of 1980 and 1981-82 affected employment in the counties more than statewide.

Since then, statewide growth has been somewhat higher, but not substantially so. On balance, employment growth in the counties has been steady and fairly strong since 1970, averaging 2.6 percent per year. Actual declines in employment occurred only in 1980 and 1996, with the latest one costing only about 20 jobs.

While the annual average trend looks fairly smooth, much employment in the area is highly seasonal and within the course of a year there are dramatic changes in the employment picture. In the section on unemployment, it was shown how unemployment varies according to the season. The same, of course, applies to employment. *Figure 23* shows covered employment in

Figure 21
Nonagricultural Wage & Salary Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

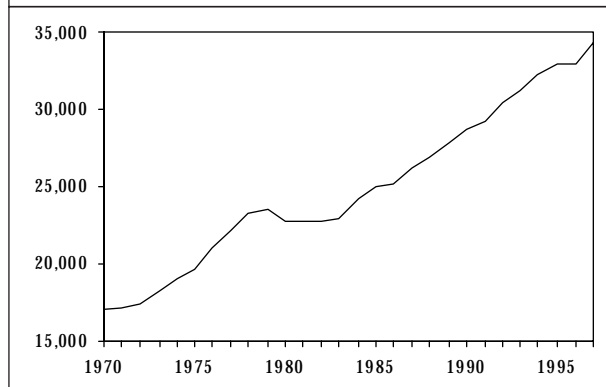


Figure 22
Nonagricultural Wage & Salary Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department

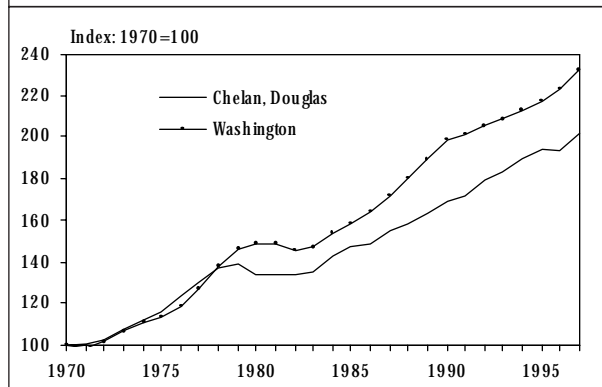
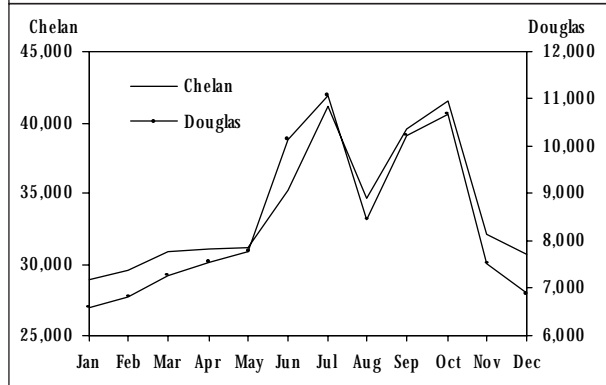


Figure 23
Monthly Covered Employment
Chelan & Douglas Counties, 1996
Source: Employment Security Department



Chelan and Douglas counties through the course of the year with large increases and decreases during the warm weather months. From May to June, employment in Chelan County rises by about 10,000 workers; in Douglas County, with its smaller work force, the increase is about 3,300. There's a sharp decline in the area in August, followed by another strong increase for September and October. Most of these variations are associated with the agricultural sector: this will be discussed in more detail in the agricultural section.

Location Quotients

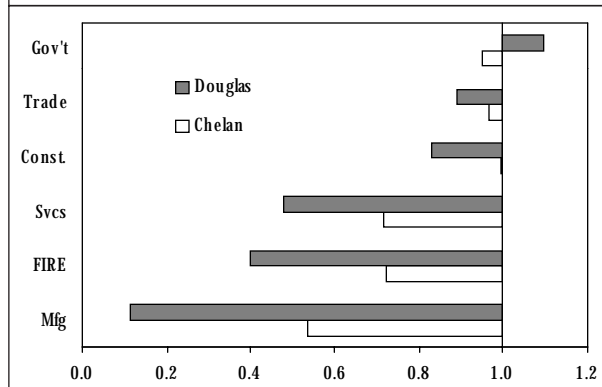
One way to determine how an area's economy is shaped is to compare it to another area. The following section shows how Chelan and Douglas county employment patterns both differ from and coincide with Washington State's. When comparing an industry's share of all employment at the county level to the same industry's share at the statewide level, it becomes apparent that some county employment is distributed differently than statewide employment. The location quotient compares the share of total employment in a particular industry division in the county with the share it represents in Washington State.

The quotient is determined by dividing the statewide industry employment share into the county industry share. A quotient of 1.0 denotes an industry in which the county is typical to the state as a whole; a value above 1.0 shows an industry with a higher concentration of employment; and a value below 1.0 marks a county industry with a lesser concentration of employment than in the same industry statewide.

A quotient above 1.0 suggests that the good or service produced by an industry is exported from the area; a quotient below 1.0 is a sign that, hypothetically, goods or services must be imported into an area to provide the same consumption patterns found at the state level. The greater the value above or below 1.0, the stronger the suggestion of exporting or importing becomes.

Figure 24 shows the 1996 location quotients of the major industry sectors in both counties: the data are

Figure 24
Location Quotients
Chelan & Douglas Counties, 1996
Source: Employment Security Department



derived from the covered employment series because it includes agriculture, which is lacking in the nonfarm series and which is a very significant part of the area's economy. The quotient for agriculture was deliberately omitted from the chart because it is so great that the others sectors become almost unreadable.

Of all the sectors, only agriculture and government (in Douglas County only) have quotients above 1.0. The agricultural quotients are very high: in Chelan County, 6.2 and in Douglas County, 9.6. This, of course, indicates a high level of exportation: virtually all of the huge amount of agricultural products are exported from the area. Washington, taken as whole, does not produce or

export agricultural products at anywhere near the same level as the two counties.

The government sector in Douglas County had a quotient of 1.1. The level of government employment in the county is driven by local government, which in turn is driven by K-12 education. The quotient is above the norm because rural areas cannot realize the economies of scale found in metro or other densely populated areas and, in general, must provide more staff on a per pupil basis than other areas. A school and its attendant facilities must be provided if there are 500 or 5,000 students in the area. The construction sector in Chelan County had a quotient of 1.0, indicating the same level of consump-

tion as occurs statewide, and the trade sector in Chelan was barely under 1.0.

All other industry sectors fell below the 1.0 mark, some by a large amount, indicating that the product or service produced probably had to be imported. Manufacturing had the smallest quotient; an extremely low 0.1 in Douglas and 0.5 in Chelan. Finance, insurance, and real estate (FIRE), was only 0.4 in Douglas but was 0.7 in Chelan. Services registered 0.5 in Douglas and 0.7 in Chelan. (Within services, though, health care in Chelan County had a strong 1.1 quotient, reflecting the county's efforts to become a regional medical center). Construction in Douglas County was 0.8 and as mentioned above, it was almost 1.0 in Chelan.

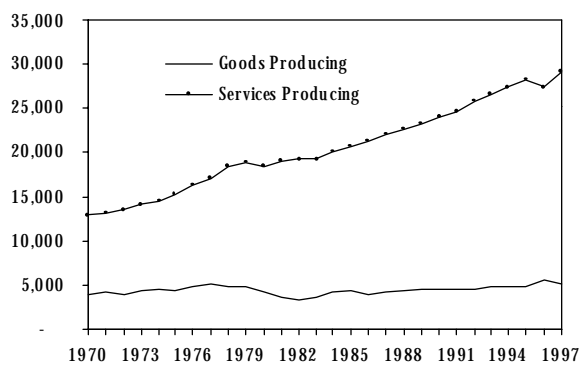
Goods and Services

Note: employment data in this sub-section are for the two counties combined and are nonagricultural only.

There has been considerable concern in recent years of the U.S. becoming a services-producing economy rather than a goods-producing economy. In Washington State, the trend is moving in that direction. In Chelan-Douglas counties, the trend is also moving that way. The percentage of jobs that are considered to be goods-producing (the manufacturing and construction/mining industries) is decreasing while the percentage of services-producing jobs (all other industries) is increasing.

The change in the actual number of jobs over time is shown in *Figure 25*. In the two-county area, the 1996 number of goods-producing jobs is greater than what existed in 1970, but not by a significant amount; about 1,000 goods-producing jobs were created during the 27 years, a 27 percent increase. During that same time, services-producing employment grew by over 16,000 jobs, a 126 percent increase. The share of goods-producing jobs in 1970 was 24 percent; in 1997 it was 15 percent. This decline was not the result of a reduction in the number of goods-producing jobs but, rather, the result of a large expansion of services-producing jobs.

Figure 25
Goods and Services Jobs
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department



In and of itself, this is not necessarily a harmful change; the services industries include many "good" jobs; doctors, lawyers, business consultants, etc., are all part of that grouping. However, there remains a strong link, on average, between goods-producing jobs and higher levels of pay. Stagnation in goods-producing jobs contributed to the overall decline in wages that occurred during the 1970s and 1980s.

Annual Average Wage

The annual average wage is derived by dividing the total wages paid in an area by the annual average employment in that area. Jobs not covered by the unemployment insurance program are excluded; however, approximately 90 percent of all employment in the state

is covered under the program. (*Note—all amounts here have been inflation adjusted to 1996 dollars.*) The average wage does not include any benefits (e.g., insurance or retirement plans) other than actual wages.

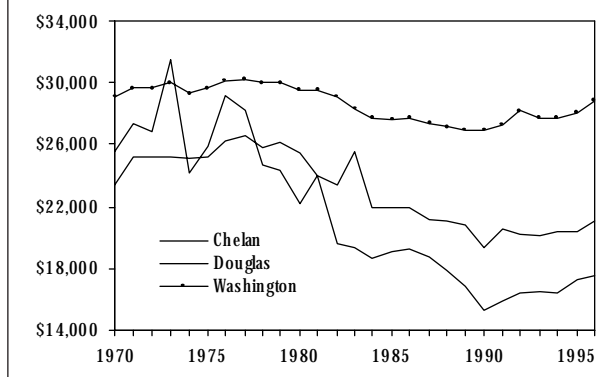
The average wage (see Figure 26) started a real decline in Chelan County after 1977 (when the wage was \$26,559) which did not end until 1990 (\$19,306). After that long decline, the wage has been rising, albeit slowly, since 1990. In 1996, it stood at \$21,068.

In comparison to the statewide average, the wage in Chelan County has been low. And, the difference has been growing. For the 1970-96 period, the wage difference averaged about \$5,500 annually. But the gap has been growing quite steadily since the late 1970s. In 1996, the difference between the county and the state was \$7,814.

In Douglas County, inflation-adjusted average wages have been even lower (\$17,549 in 1996). And they have fallen further in real terms. In 1970, at \$25,542 the wage was higher than in Chelan County and in 1973, when it peaked at \$31,489, it even surpassed the state's average. However, like in Chelan County, the wage in Douglas County started to decline in 1977 and fell quite rapidly until 1990, its low point of \$15,212. Since then, it has increased every year save one—a slight dip in 1993. The difference between the county and the state, though, was a substantial \$11,000 in 1996.

The increasing average wage in the counties since 1990 is linked to the strong economic performance of the state and the nation. As the chart shows, the declines

Figure 26
Annual Average Wage
Chelan, Douglas, & Washington, 1970-1996
Source: Employment Security Department



and the increases in both counties occurred in tandem with that of the state, although at a lower level.

Figure 27 on the next page shows the average wage in 1996 for the major industry sectors and some specific industries in Chelan and Douglas counties and in Washington State. Overall, the Chelan County wage was less than three-fourths of the state wage and the Douglas County wage was only 61 percent. The wages in the counties for the major industrial sectors were all lower than their statewide counterparts.

Agriculture

Through 1996, apples continued as the state's number one commodity in terms of value of production, which totaled \$943.7 million during 1996, down 8 percent from 1995 when apples became Washington's first billion dollar crop. Washington is the nation's largest grower of apples. Over half of the nation's entire crop is produced in Washington. The Wenatchee Fruit Reporting District, comprised of Chelan, Douglas, and Okanogan counties, produced 35 percent of the state's output. Pears ranked as the second most important fruit grown in the state, with a value of production of \$124.9 million. Washington growers produced 37 percent of the nation's pears in 1996 and the Wenatchee FRD produced more than half. Sweet cherry growers in the state produced 69,000 tons during 1996, 45 percent of the national total. The Wenatchee FRD produced almost half of that. With a value of production of \$118.9 million, sweet cherries are the third most important fruit grown in the state. Washington is the third largest wheat grower

in the nation and Douglas County alone produces 5 percent of the state's total.

Washington is the number one producer of apples, sweet cherries, and pears in the nation. And all that fruit is tended and harvested by hand. One of every four jobs in the two-county region is on a farm. Tree fruit production is labor intensive; it always has been and most likely will be for a long time into the future.

Figure 28 on the next page shows agricultural employment since 1990. The level of annual employment, to a large degree, depends upon how well the crop does. The higher employment in 1994 resulted from a very good year for apples, and most other crops as well.

One problem associated with a large agricultural employment base is the seasonality of the work. During the course of a year, the number of workers fluctuates radically. While some work must be done year-round, periods of peak activity, such as thinning and harvesting, require very large concentrations of labor for relatively short periods.

Figure 27
Annual Average Wage
Chelan, Douglas, and Washington, 1996
Source: Employment Security Department

	Chelan	Douglas	State		Chelan	Douglas	State
<i>Total</i>	\$21,071	\$17,553	\$28,883	Eating & Drinking Places	\$9,287	\$8,363	\$9,991
<i>Agriculture</i>	\$11,474	\$10,922	\$14,510	Miscellaneous Retail	\$12,672	\$8,830	\$16,149
Agricultural Prod - Crops	\$10,084	\$10,051	\$11,381	<i>FIRE</i>	\$23,906	\$22,536	\$34,428
Agricultural Services	\$16,195	\$16,507	\$16,176	Depository Institutions	\$28,766	\$24,093	\$31,530
<i>Construction</i>	\$27,256	\$23,225	\$30,696	Nondepository Institutions	\$35,940	*	\$42,838
General Bldg Contractors	\$23,732	*	\$29,435	Security & Commod Brokers	\$63,184	*	\$73,240
Heavy Construct, ex. Bldg	\$40,502	*	\$38,589	Insurance Carriers	\$35,455	*	\$39,666
Special Trade Contractors	\$23,010	\$20,237	\$29,267	Insur Agents, Brokers, & Svc	\$25,638	\$21,370	\$36,070
<i>Manufacturing</i>	\$30,680	\$28,095	\$39,089	Real Estate	\$13,299	\$16,073	\$21,138
Food & Kindred Products	\$21,544	*	\$28,399	Holding & Other Investment	\$17,014	*	\$4,441
Lumber & Wood Products	\$24,505	*	\$32,797	<i>Services</i>	\$21,888	\$15,597	\$28,074
Printing & Publishing	\$22,416	*	\$28,524	Hotels & Other Lodging	\$10,228	\$9,366	\$15,187
Stone, Clay, & Glass Prods	\$22,018	*	\$32,175	Personal Services	\$13,768	\$11,063	\$14,888
Primary Metal Industries	\$45,786	*	\$42,952	Business Services	\$15,025	\$13,012	\$41,857
Fabricated Metal Products	\$17,947	*	\$30,258	Auto Repair, Svcs, & Parking	\$17,719	\$16,919	\$21,924
Industrial Mach. & Equip.	\$30,677	*	\$37,024	Misc Repair Services	\$22,126	\$17,900	\$26,338
Misc Mfg Industries	\$10,172	*	\$27,184	Amusement & Recreation	\$10,442	\$13,330	\$17,403
<i>TCU</i>	*	\$30,494	\$35,880	Health Services	\$32,634	\$22,162	\$28,198
<i>Trade</i>	\$17,340	\$15,070	\$20,643	Legal Services	\$21,235	*	\$37,336
<i>Wholesale Trade</i>	\$25,847	\$25,067	\$34,883	Educational Services	\$14,857	\$11,517	\$23,817
Wholesale Trade - Durable	\$28,339	\$25,011	\$37,404	Social Services	\$14,955	\$13,529	\$14,915
Wholesale Trade - Nondur	\$25,174	\$25,086	\$31,731	Museums, Botan, Zool Gdns	\$11,625	*	\$17,213
<i>Retail Trade</i>	\$14,148	\$13,373	\$16,081	Membership Organizations	\$13,105	\$5,320	\$19,181
Bldg Materials & Gdn Suppl	\$22,184	\$15,731	\$21,993	Engineering & Mgmt Services	\$23,694	\$28,329	\$41,061
General Merchandise Stores	\$13,462	\$19,939	\$18,103	Private Households	\$7,914	\$7,906	\$8,835
Food Stores	\$17,090	\$13,963	\$18,117	<i>Government</i>	\$30,718	\$28,428	\$31,957
Auto Dealers/Svc Stations	\$22,802	\$18,043	\$26,113	Federal	\$34,823	\$36,326	\$39,649
Apparel & Accessory Stores	\$9,820	\$10,125	\$18,313	State	\$31,153	\$28,839	\$32,276
Furniture & Homefurn Strs	\$19,138	\$24,368	\$21,826	Local	\$29,799	\$27,605	\$29,696

* Suppressed data

Figure 28
Agricultural Employment
Chelan & Douglas Counties, 1990-1996
Source: Employment Security Department

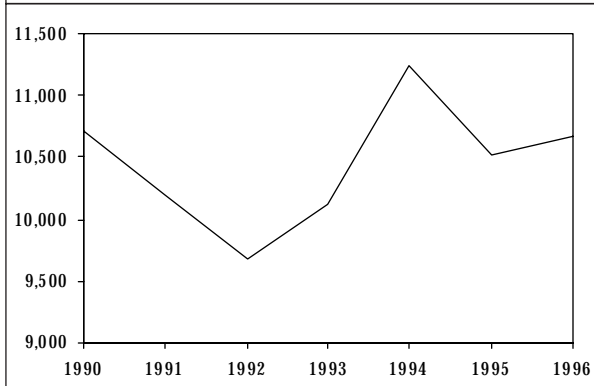
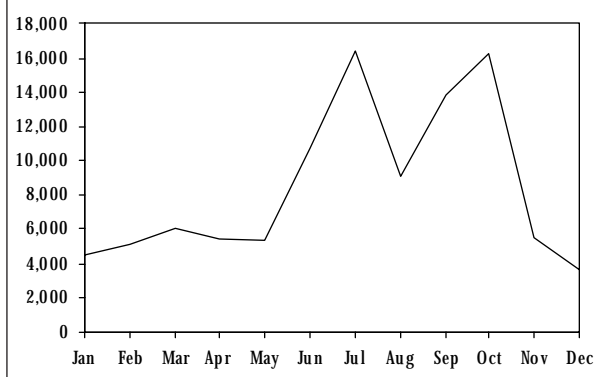


Figure 29 on the next page, which shows monthly employment (both counties combined) in 1996 in that industry of the agricultural sector categorized as crop production, is typical of almost any year. The cool or cold months—November through May—are characterized by a fairly stable and relatively small employment level. The primary activity during these months is apple and pear tree pruning. In June, though, employment shoots up dramatically, for June and July are the months for thinning pears and apples and harvesting cherries. August has a decline in employment once the fruit thinning and cherry harvest winds down. Employment jumps again in September with the pear harvest, followed shortly by, or conjoined with, the apple harvest. Employment falls sharply thereafter as fall sets in and most of the work is completed. And then the cycle begins anew.

Figure 29
Monthly Crop Production Employment
Chelan & Douglas Counties, 1996
Source: Employment Security Department



Even with these massive fluctuations in employment, the sector, on average in 1996, accounted for 23 percent of Chelan's covered employment and a whopping 35 percent of Douglas', easily making agriculture the largest employer in both counties. (The trade sector is slightly larger in Chelan County if wholesale and retail are combined.) Statewide, agriculture accounted for less than 4 percent of covered employment.

Aside from the problems inherent to wide and swift changes in employment levels, another concern associated with agriculture is wages. Not only is the sector the largest in both counties, it also has the lowest average wage. In 1996, Chelan County's overall annual average wage was \$21,071; in agriculture, it was \$11,474. In Douglas County, the overall average was \$17,553; in agriculture it was \$10,922. In the more specific industry of crop production, which uses the most workers, the wage was even lower: \$10,084 in Chelan and \$10,051 in Douglas.

One reason farm workers in the area earn so little is that the work is manual. Equipment operators, for

example and in contrast, normally earn significantly more because of higher skills. This is not the case with tree fruit workers, one of the least mechanized industries in agriculture.

Another reason for low wages is that much of the work is part time. The average wage is derived by dividing total paid wages by the average employment. However, no distinction is made between part-time and full-time employment. If a firm employs ten workers, all of whom work only two hours a day, the average employment is still considered to be ten. This yields what appears to be a very low annual average wage if one erroneously assumes the average wage represents the earnings of someone working full time and year-round. Much of farm work is part time and seasonal. And because of the seasonality, many farm workers will take nonagricultural jobs during the off-seasons, or migrate to other areas where farm work is available.

But even with the problems associated with agriculture, it remains, and will remain, the backbone of the economy in both counties. Not only does its product generate huge revenues, other industries are directly involved in adding value to the output (e.g., food processing, wholesale trade, etc.) and its secondary effects in the region are very large.

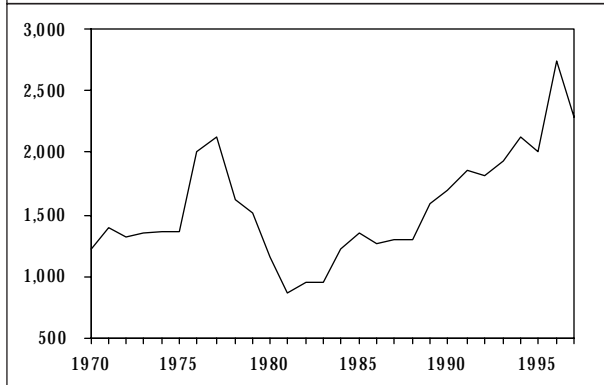
The future of agriculture looks good; world markets are opening up to American agriculture and more and more of Washington's produce is being shipped overseas. In general, recent worldwide trends to liberalize trade is good for the region's farmers. While these actions may increase competition, Washington apples remain the standard by which others are judged. The recessionary weakness of many Asian nations is currently hurting agricultural sales and wheat prices are at very low levels; however, these are temporary situations and the agricultural sector will weather them as it continues to feed an increasingly affluent world.

Construction and Mining

In the two counties from 1970 to 1997, construction and mining employment increased 86 percent, moving from 1,230 to 2,290 (see *Figure 30 on the next page*). At the same time, total nonagricultural employment grew 102 percent. Statewide, the same sector grew 153 percent during that time. *Figure 31* indexes employment to 1970=100 and compares the counties to Washington.

While the counties' construction and mining sector growth lagged the state's, it nevertheless accounted for 7 percent of nonagricultural employment while the sector statewide accounted for only 6 percent in 1996. The share size is misleading, though, because the nonfarm employment series, of course, doesn't include agriculture, which is very substantial in the two counties. Until

Figure 30
Construction & Mining Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

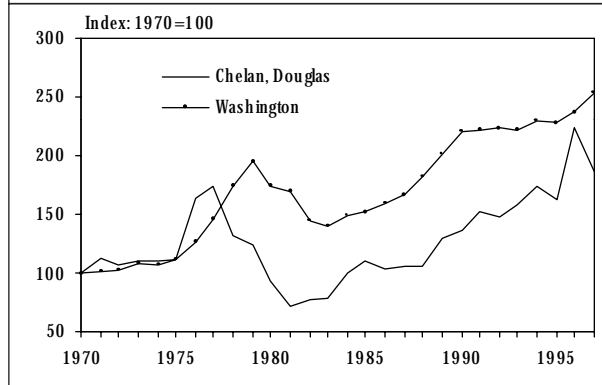


recently, construction employment had been growing strongly. From 1988 to 1996, employment more than doubled, adding about 1,450 new jobs. A downturn occurred in 1997, with employment decreasing by about 460 jobs.

Chelan County. Construction and mining data are generally rolled up together because, in Washington, mining is not a large industry. Further, mining's small number of employing units causes most data to be suppressed for confidentiality reasons. Historically, there have been gold mining operations in the county. In recent years, though, the price of gold has been so low as to make mining unprofitable and operations have ceased. Virtually all of the employment in this sector comes from construction: there are a handful of workers employed in crushed rock/gravel operations but their numbers and wages are suppressed for confidentiality reasons.

In 1996, Chelan County had 1,673 covered workers in the construction sector. The largest segment of the sector, which totaled 753 covered jobs, consisted of spe-

Figure 31
Construction & Mining Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



cial trade contractors (plumbing, electrical work, painting, carpentry, etc.). The second largest industry was general building contractors, whose 536 workers were primarily engaged in residential construction. Heavy construction employed 384 workers, mainly employed on highway and street work.

Wages in construction are considerably higher than the countywide average: \$27,256 versus \$21,071 in 1996. High wages in heavy construction (\$40,502 average) drive up the sector's average and disguise the lower wages in special trades (\$23,010) and in general building (\$23,732).

Douglas County. The sector in Douglas County is unaffected by mining which is nonexistent. In 1996, construction employed 347 workers, paying an average wage of \$23,225. Only government and manufacturing paid a higher average wage. Its special trades contractors, like Chelan County's, provided the bulk of sector employment; close to half. The average wage was \$22,672. Data for the other industries are suppressed.

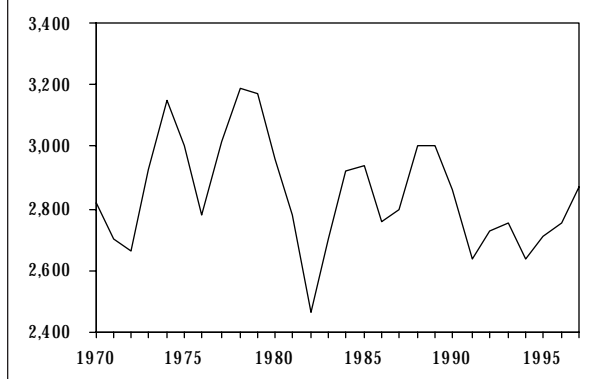
Manufacturing

Manufacturing employment in both counties combined, after repeatedly expanding and contracting over the last 27 years, wound up with a net gain of 50 jobs for the entire period (see Figure 32 on the next page). Peak employment was 3,190 in 1978; the nadir was 2,460 in 1982. While the actual number of jobs in 1997 (2,870) was essentially the same as in 1970 (2,820), manufacturing's share of total nonagricultural employment shrank from 1970's 17 percent to 1997's 8 percent as overall employment in other sectors increased.

Chelan County. Overall, the county's manufacturing sector pays a relatively high annual wage, second only to government. In 1997, the average annual wage for manufacturing was \$30,680. While only 78 percent of the average wage for statewide manufacturing, it is, nevertheless, quite high by eastern Washington standards.

Aluminum is a large industry in Chelan County's manufacturing sector. The availability of large quantities of low-cost electricity makes aluminum production feasible and

Figure 32
Manufacturing Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

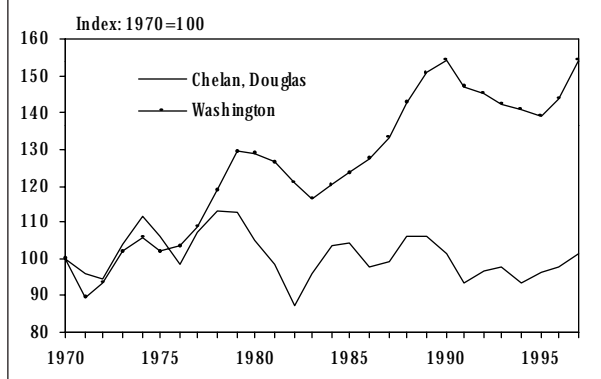


Washington State has a number of aluminum producing sites for this reason (Wenatchee, Longview, Goldendale, Tacoma, Ferndale, Vancouver, and Spokane). In 1992, statewide aluminum production comprised 38 percent of the nation's output.

Aluminum production is a high-cost, skill-intensive operation. And the product must compete in a very competitive international market. International factors determine the price of aluminum ingots and, much like gold mining, there is a break-even point below which it is not feasible to operate. Because the price can fluctuate radically, production operations will expand or contract to meet the conditions. Most of the major alternations in manufacturing employment stem from changes in the price of aluminum, which directly affects employment levels. In 1996, almost a third of the county's manufacturing employment was in primary metals, so when there is a sharp change in that industry, it influences the entire sector.

Primary metals employed 760 workers in 1996 (covered employment) and paid an annual average wage of almost \$46,000. Aluminum workers are paid very well by county (and statewide) standards and this injects a good level of spending into the local economy.

Figure 33
Manufacturing Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



Food processing, another major industry in Chelan County, is primarily concerned with products derived from tree fruits. Most employment is engaged in producing canned, dehydrated, and frozen fruits. In 1996, there were 466 workers earning an average wage of \$21,544. Employment in this industry fluctuates considerably, also, depending upon crop production.

Other industries with significant amounts of employment in 1996 were lumber and wood products (228) and printing and publishing (264). Some other establishments with small to moderate employment were producing plastic foam products, food processing machinery, and aircraft parts.

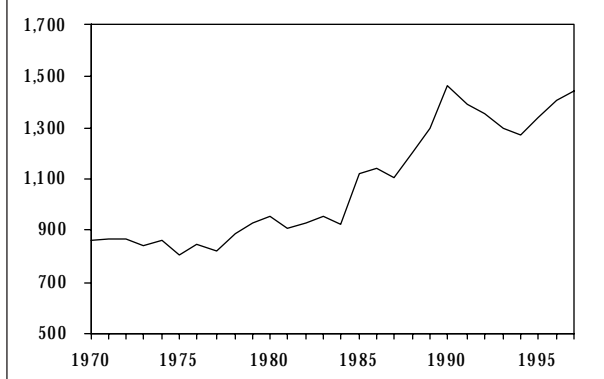
Douglas County Douglas County has a small manufacturing sector. In 1996, it only employed 135 workers, accounting for less than 2 percent of covered employment in the county. Its average wage was \$28,095, about 72 percent of the statewide manufacturing wage. It measures significantly higher than the county's overall average wage of \$17,553. The bulk of employment is in primary nonferrous metal manufacturing (i.e., silicon), but all data are suppressed for confidentiality reasons.

Transportation, Communications, and Utilities (TCU)

The TCU sector encompasses entities as diverse as trucking, warehousing, communications, and electrical utilities. *Figures 34 and 35* on the next page show employment from 1970 to 1997. The most recent year had

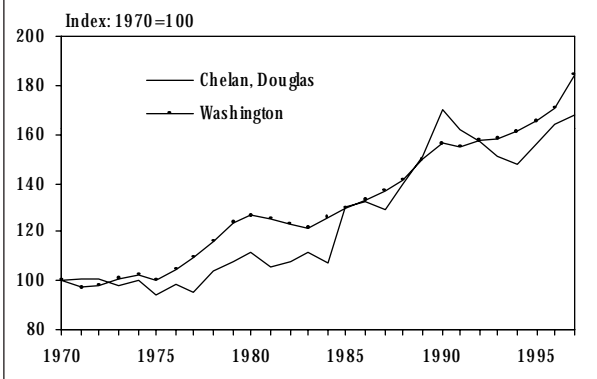
1,440 workers in the sector, almost as many as in its peak in 1990. In the two-county region, the dominant industries in the sector are trucking and warehousing. The increases since 1984 are almost all attributable to

Figure 34
TCU Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department



these two industries. Trucking and warehousing are, of course, linked directly to agriculture and its production.

Figure 35
TCU Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



Virtually all the covered employment and wage data for the sector are suppressed—a breakout of employment by industry and a listing of average wages is not feasible.

Trade

Buying and selling commodities is big business in Chelan and Douglas counties. Based on employment, it is far more important in the county than statewide. Thirty percent of the area's nonagricultural employment is in trade but statewide the share is only 24 percent (1997). The difference reflects the wholesaling of agricultural commodities in the two-county region. This makes trade (based on nonfarm data) the largest employing sector in the two-county region. As *Figure 36* shows, the area's trade sector has demonstrated steady growth over the

past twenty-seven years. Declines have occurred, but only briefly. For the entire period, the increase totaled about 5,300 new jobs, growth of 103 percent.

Chelan County. Covered employment in 1996 was 7,850 (wholesale and retail combined), making trade the largest employing sector in Chelan County. The average wage in trade, which is characterized by large amounts of part-time work on the retail side, was \$17,340. This is considerably less than the county's over-

Figure 36
Trade Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

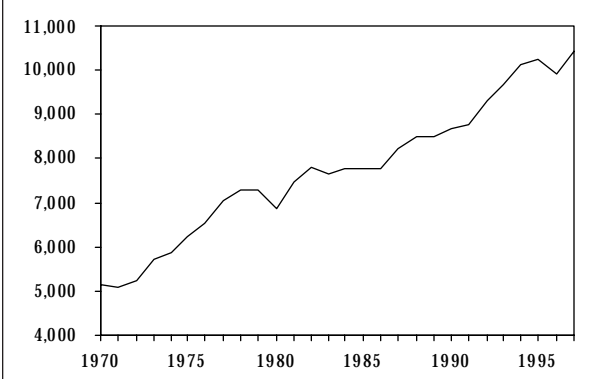
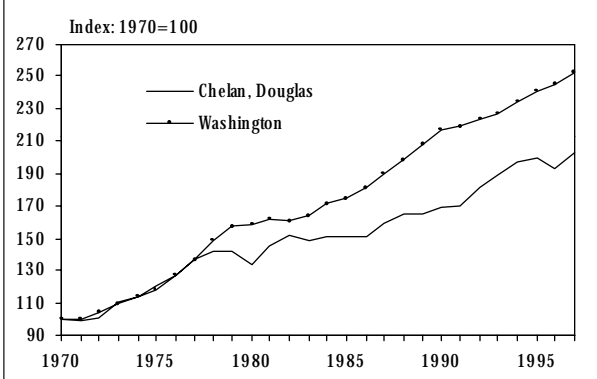


Figure 37
Trade Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



all average wage and about 84 percent of the statewide average for the trade sector.

Trade is normally divided into two components; wholesale and retail. As a general rule, retail trade employs more people than wholesale trade but pays less in wages. This holds true in Chelan County. Wholesale trade accounts for 27 percent of all trade and pays close to \$12,000 a year more in average wages (\$25,847 versus \$14,148).

There are two major industry divisions in wholesale trade; durable and nondurable goods. The durable goods trade industry is the highest paying industry in all of trade with an average wage of \$28,339. There is, however, considerably more employment in nondurable goods, whose average wage is \$25,174. The primary nondurable good that is traded in Chelan County is fresh fruit (and vegetables). About 1,250 workers from 27 establishments are employed in this industry.

Covered employment in retail trade was 5,708 in 1996. By far the largest retail industry, eating and drinking places employed 2,103 persons. The annual average wage was \$9,287, the lowest of any trade industry. However, work in this industry has historically been characterized by part-time employment, which strongly

influences and lowers the average wage. Further, tip income is not included in the wage data.

Food stores are also a major employer in the area, employing close to a thousand workers, making the industry the second largest in the county's retail trade sector. The average wage was \$17,090. General merchandise stores and auto dealers and service stations also have significant employment. The former employed 665 and the latter, 619.

Douglas County. Trade has a lesser share of total covered employment than Chelan County but its 1,805 workers still constituted about 21 percent of the county's total employment in 1996. The average wage in Douglas County trade was \$15,070.

Wholesale trade, employing 262, accounted for 15 percent of all trade and paid an average wage of \$25,067. As in Chelan County, the great majority of workers in wholesale trade were in the nondurable goods industry.

On the retail side, eating and drinking places was the dominant industry in terms of employment (558). Merchandise stores (275) and food stores (209) also employed substantial numbers. Altogether, the retail sector employed 1,543 and paid an average wage of \$13,373. Like in Chelan County, and most counties, eating and drinking places had the lowest average wage.

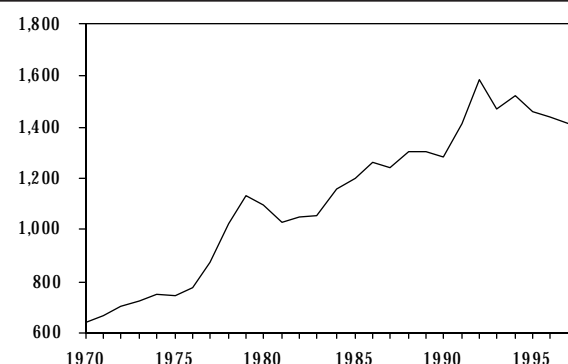
Finance, Insurance, and Real Estate (FIRE)

Employment in the FIRE sector in 1997 amounted to 4 percent of all nonagricultural jobs in Chelan and Douglas counties. Although one of the smaller sectors, its annual growth over the last 27 years averaged 3.0 percent while overall nonfarm growth was 2.6 percent. This equates to a 120 percent increase since 1970; the actual number of jobs going from 640 to 1,410 (see *Figure 38*). The growth rate has generally surpassed that of the same sector statewide. *Figure 39* shows employment indexed to 1970=100, and although growth rates converged in the most recent year, the counties have historically had a higher growth rate.

Chelan County. Wages in the sector averaged \$23,906 in 1996, quite a bit more than the county's overall wage of \$21,071. However, like the rest of Chelan County's sectors, it was less than (only 69 percent of) the statewide average for the same industry.

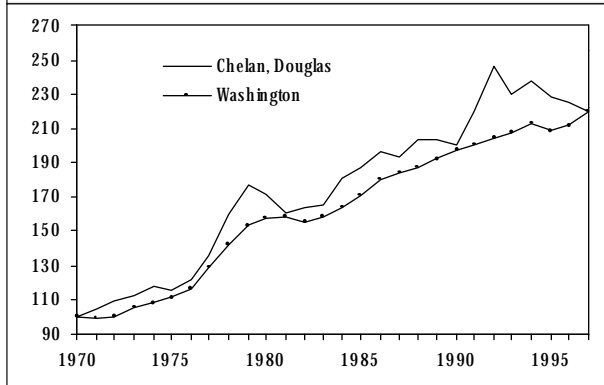
Real estate was the largest employer in the sector, primarily because of the strength in residential construction over the last few years. Employment in real estate

Figure 38
FIRE Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department



fluctuates directly with the economy; much of the work is part time and agents tend to move into and out of the labor market at a high rate depending upon the strength of the economy. The industry had 495 covered workers

Figure 39
FIRE Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



in the most recent year. But because much of the work is part time, or based on commission only, the average wage was relatively low: \$13,299.

The second largest employing industry in the sector is depository institutions. With 37 percent of FIRE sector employment, it provided jobs to 460 workers. The average wage of those working for depository institutions was \$28,766. Depository institutions include banks, savings and loans, credit unions, etc.

Douglas County. FIRE in Douglas County paid an average wage of \$22,536 to 169 workers in 1996. Like in Chelan County, employment in its various industries was concentrated in depository institutions (75 workers averaging \$24,093) and real estate (62 workers averaging \$16,073).

Services

This sector, with industries as diverse as health care, movie theaters, and hotels and lodging places, is, after trade, the largest nonagricultural employer in the two-county region. Its employment has grown faster than any other industry, clipping along at a 4.2 percent annualized rate since 1970 (*see Figures 40 and 41*). Over that period, it generated 5,460 new jobs, a 204 percent increase. In 1970, this sector accounted for 16 percent of nonfarm employment; in 1997, its share was up to 24 percent. And, its job growth has been remarkably steady. Only in one year (1988) did it fail to post an increase.

Chelan County. The services sector in Chelan County employed 6,195 covered workers in 1996. The growth

and size of the services sector is shaped, to a large degree, by a small number of industries. The largest one is health services, which, fortunately, pays the highest average wage. This industry accounts for almost half of all Chelan County services employment. In 1996, employment was 2,697 with an average wage of \$32,634. (Statewide, health care workers averaged \$28,198.) The health services industry includes workers in the offices of physicians, dentists, optometrists, chiropractors, etc., hospital staff, nursing home workers, etc.

Hotels and other lodging places constitute another important part of the services sector. Because the county attracts a relatively large number of tourists and recreational

Figure 40
Services Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

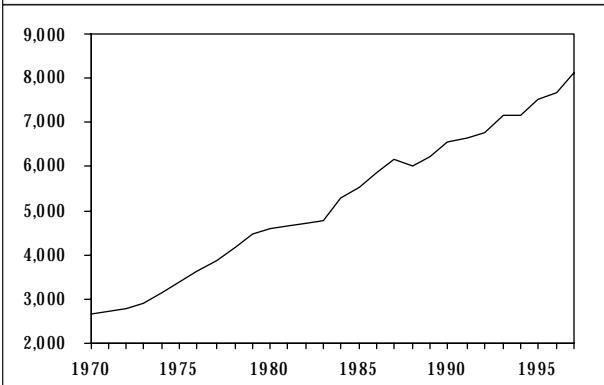
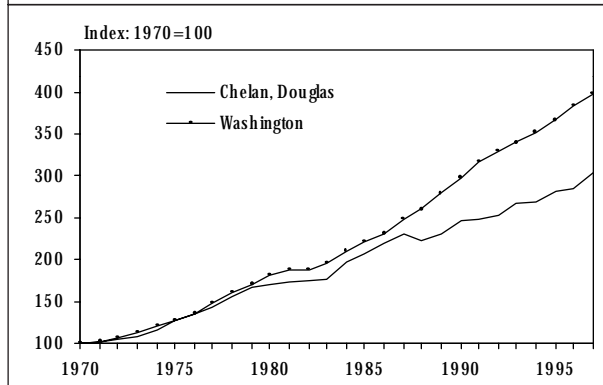


Figure 41
Services Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



skiers, the lodging industry is significant. Some 61 lodging places employed 860 workers, making it the second largest industry in the sector. The average wage was relatively low, \$10,228, driven by entry-level pay scales and considerable amounts of part-time work. Amusement and recreation services, also affiliated to a large degree with tourism and recreational sports, had strong employment (454) and a low average wage (\$10,442).

Other industries in the services sector with fairly large numbers of workers were social services (472), business services (378), and auto repair and services (229).

Douglas County. There were 1,028 workers in the services sector in Douglas County in 1996. Wages averaged out to \$15,597 per workers. As in most areas, the largest services industry was health services (257). Business services, social services, and hotels and lodging places had substantial numbers of employees, also. Health services had one of the highest average wages in the sector, but at \$22,162 it was over \$10,000 less than in neighboring Chelan County. The absence of any hospitals, with their higher wage rates, keeps the average relatively low.

Government

Government has a large presence in the Chelan-Douglas economy. Only slightly smaller than the services sector (based on employment), it constitutes about 23 percent of nonfarm employment. Statewide, government only has an 18 percent share of the total. There were 7,770 government workers in the two counties in 1997. Since 1970, public sector employment has more than doubled, growing by 114 percent while adding over 4,000 jobs.

Public employees, by county standards, are well paid. Their average wage in 1996 was \$30,718 (Chelan) and \$28,428 (Douglas), among the highest wages in the counties. The wage in Chelan County was 146 percent of the county's overall average wage and in Douglas County it amounted to 162 percent. Not only does government inject substantial money into the county economies, it also provides a level of stability and continuity

to a work force otherwise beset with seasonality and part-time employment.

Chelan County. Of the three governmental divisions (federal, state, and local), local government is the largest. Its 1996 covered employment was 3,893, about two-thirds of all public employment in the county. The average wage was \$29,799.

Based on employment, local government is primarily concerned with K-12 education: a full 49 percent of its work force is devoted to schooling. General governmental functions account for about 21 percent of employment and 14 percent of the local government work force is with the electric power public utility district. (Workers in the PUD are among the higher paid employees in the county; the 524 workers there averaged almost \$55,000 in wages in 1996.)

Government at the state level employed 1,060 workers in 1996. The largest employers were the commu-

Figure 42
Government Employment
Chelan & Douglas Counties, 1970-1997
Source: Employment Security Department

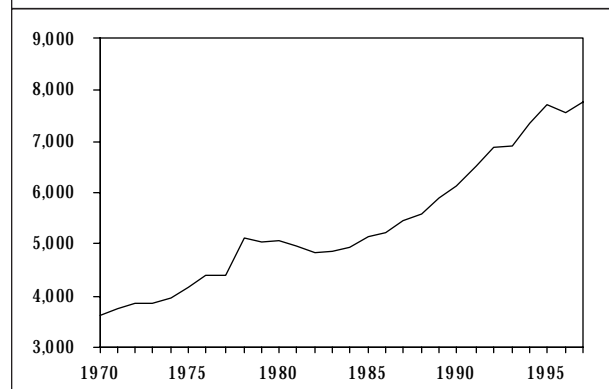
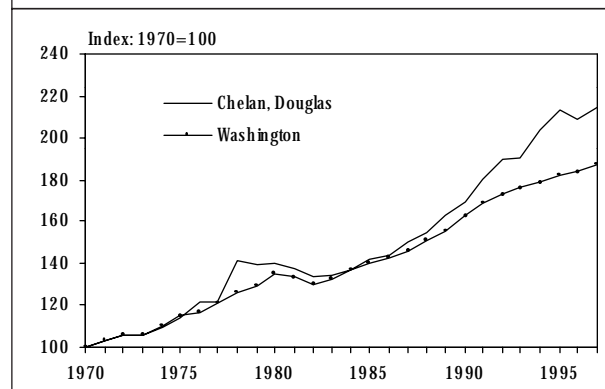


Figure 43
Government Employment
Chelan, Douglas, & Washington, 1970-1997
Source: Employment Security Department



nity college (241) and the Department of Transportation (217).

The federal government employed 760 workers. Most federal employees worked in programs related to the conservation of land and wildlife in the Wenatchee National Forest. Federal workers averaged \$34,823, the highest wage of the three government entities.

Douglas County. Government employment in Douglas County constituted 19 percent of all covered workers. Local government, by far, is the largest of the components: 87 percent (1,425 workers) of government employment is at the local level and most of that is devoted to K-12 education. The federal government had 145 employees and the state had 66.

Tourism

Tourism is an important industry, though not officially recognized as one by the standard industrial classification system. Most of the industries in what is normally considered tourism are found in the services sector. Chelan County does draw a large number of tourists. It offers a wide range of activities, most related to its scenic forests and lakes, that include hunting, fishing, boating, hiking, camping, and skiing. Lake Chelan is one of the county's major attractions and is a preferred weekend destination (especially three-day weekends) for many Puget Sound residents. The city of Leavenworth has transformed itself, with its Bavarian atmosphere and nearby skiing, into a large tourist draw.

The Washington State Tourism Division released a report in January 1997 entitled, *Travel Impacts & Visitor Volume*. Prepared by Dean Runyan Associates, the report looks at what is called the travel industry, a more expansive term than tourism for it includes business related activities as well as what is normally thought of as tourism. According to the report, travel spending amounted to \$191 million in 1995 in Chelan County. The

industry generated about 3,700 jobs with a payroll of \$37 million. The number of jobs amounted to 11 percent of the county's covered employment in 1995—a sizeable industry. Chelan County ranked seventh among Washington's 39 counties in these measures.

Douglas County did not approach that level of travel related impacts. Travel spending amounted to almost \$20 million and supported 372 jobs with a payroll of \$3.8 million. The number of jobs comprised about 4 percent of the county's total covered employment.

The numbers point out that travel/tourism is important to the area's economy. On the other hand, dividing the payroll by the employment yields relatively low average wages: \$11,825 in Douglas County and \$10,084 in Chelan County. In fact, if travel/tourism were an industry sector, the wages would be on a par with agriculture, the lowest paid of all the sectors. In mitigation, there is probably a higher level of part-time work in the travel industry than any other, which can have a dramatic impact on annual average wages.

OCCUPATIONAL PROFILE

A different but informative way to view an area's work force is in terms of occupational divisions rather than industrial divisions. *Figure 44* shows employment in the major occupational divisions as well as the share of each grouping for Chelan and Douglas counties and the state. The table also shows the projections for each grouping to 2005.

Of significance, the counties' work force is made up of a larger percentage of "blue-collar" occupations and a smaller percentage of "white-collar" occupations than the state. Some 46 percent of county occupations are considered blue-collar whereas the state's share is only 28 percent. The strongest factor causing the difference is the large percentage of agricultural occupations in the counties. Although agricultural occupations will be

the slowest growing ones, in 2005 they will remain the largest group. Fastest growing will be the professional/technical occupations, which will be the second largest pool of jobs.

Figure 45 on the next page is based on Occupational Employment Surveys (OES) conducted by the Employment Security Department. The data are from the central Washington area of Chelan and Douglas counties as well as Adams, Grant, Kittitas, and Okanogan. While the wages are not specific to the two county area, they are representative of wages paid in the general area. Unfortunately, the most recent survey did not include the agricultural occupation grouping so a very important part of the wage structure is not present.

Figure 44
Occupational Employment and Projections
Chelan, Douglas, and Washington, 1995 and 2005
Source: Employment Security Department

	Chelan-Douglas					Washington		
	1995		2005		% Chg	Jobs	1995	2005
Total	71,956	100%	91,879	100%	28%	19,923	100%	100%
Managerial & Administrative	4,233	6%	5,645	6%	33%	1,412	7%	7%
Professional, Paraprof., & Tech	10,138	14%	14,753	16%	46%	4,615	22%	23%
Marketing & Sales	6,175	9%	8,181	9%	32%	2,006	11%	11%
Clerical & Admin. Support	8,159	11%	10,476	11%	28%	2,317	16%	15%
Services	9,856	14%	14,178	15%	44%	4,322	16%	17%
Ag., Forestry, Fishing & Related	17,555	24%	18,213	20%	4%	658	4%	4%
Prec. Production, Craft, & Repair	7,433	10%	9,706	11%	31%	2,273	12%	11%
Operators, Fabricators, & Laborers	8,407	12%	10,727	12%	28%	2,320	12%	12%
White-Collar	38,561	54%	53,233	58%	38%	14,672	72%	74%
Blue-Collar	33,395	46%	38,646	42%	16%	5,251	28%	26%

Figure 45
Occupational Wages
Central Washington, 1995
Source: Employment Security Department

TITLE	HOURLY MEAN WAGE	TITLE	HOURLY MEAN WAGE
Accountant & Auditor	\$17.60	Dental Hygienist	\$26.64
Adjustment Clerk	\$12.15	Dentist	\$43.23
Administrative Service Manager	\$22.24	Designer, except Interior Design	\$16.23
Agricultural & Food Scientist	\$16.82	Dining Room, Cafeteria & Bartndr Help	\$5.94
Amusement & Recreation Attendant	\$7.41	Dispatcher, Police, Fire & Ambulance	\$15.59
Animal Caretaker, except Farm	\$7.77	Drafter	\$19.89
Artist & Related	\$14.18	Driver/Sales Worker	\$13.90
Assemble, Fabric, ex Mach, Elec, Prec	\$10.48	Drywall Installer	\$21.87
Automotive Body, Related Repairer	\$15.36	Education Administrator	\$27.43
Automotive Mechanic	\$11.45	Electrical & Electronic Engineer	\$24.57
Baker, Bread & Pastry	\$8.72	Electrical & Electronic Technician	\$14.11
Bank Teller	\$8.36	Electrician	\$20.15
Bartender	\$6.78	Emergency Medical Technician	\$15.67
Bicycle Repairer	\$7.46	Employment Interviewer, Private, Public	\$14.83
Bill & Account Collector	\$10.87	Excavating & Loading Machine Operator	\$15.62
Billing, Cost & Rate Clerk	\$10.51	Faller & Bucker	\$20.26
Biological Scientist	\$22.11	Farm Equipment Mechanic	\$12.43
Bookkeepng, Accounting & Auditing Clk	\$9.94	Farm Equipment Operator	\$10.65
Broker, Real Estate	\$26.62	Financial Manager	\$21.97
Bus & Truck Mech & Diesel Specialist	\$16.81	Fire Fighter	\$17.83
Bus Driver, except School	\$14.13	First Line Supervisor, Agr, Forest, Fish	\$14.43
Bus Driver, School	\$11.66	First Line Supervisor, Clerical	\$13.59
Butcher & Meat Cutter	\$12.77	First Line Supervisor, Constr & Extract	\$21.94
Cannery Worker	\$7.36	First Line Supervisor, Helpers, Laborer	\$12.20
Carpenter	\$15.14	First Line Supervisor, Mech & Repair	\$17.70
Carpet Installer	\$16.61	First Line Supervisor, Production	\$12.75
Cashier	\$6.96	First Line Supervisor, Sales & Related	\$12.49
Child Care Worker	\$7.43	First Line Supervisor, Transportation	\$14.94
Civil Engineer, including Traffic	\$23.32	Food Preparation Worker	\$7.68
Civil Engineering Technician	\$18.49	Food Service & Lodging Manager	\$11.41
Clergy	\$16.05	Forest & Conservation Worker	\$11.18
Combined Food Preparation & Service	\$6.05	Forester, Conservation Scientist	\$17.81
Communication, Transport, Utilities Mgr	\$20.22	General Manager & Top Executive	\$21.15
Comply Officer & Inspector, exc Const	\$14.79	General Office Clerk	\$9.25
Concrete & Terrazzo Finisher	\$16.26	Grader & Sorter, Agricultural Product	\$6.96
Construction Manager	\$18.52	Grader, Bulldozer & Scraper Operator	\$17.41
Cook, Fast Food	\$6.07	Guard & Watch Guard	\$7.67
Cook, Institution or Cafeteria	\$8.49	Hairdresser & Cosmetologist	\$8.06
Cook, Restaurant	\$8.44	Hand Packer & Packager	\$7.33
Cook, Short Order	\$8.03	Heat, A/C, Refrigeration Mech & Install	\$14.54
Counter & Rental Clerk	\$6.64	Helper, Carpenter & Related Worker	\$12.45
Counter Attendant, Lunchrm, Cafeteria	\$6.71	Helper, Mechanic & Repairer	\$10.44
Crush, Grind, Mix Machine Op/Tender	\$11.55	Highway Maintenance Worker	\$15.66
Dental Assistant	\$13.04	Home Health Aide	\$8.27

Figure 45 continued
Occupational Wages
Central Washington, 1995
Source: Employment Security Department

TITLE	HOURLY MEAN WAGE	TITLE	HOURLY MEAN WAGE
Hotel Desk Clerk	\$6.50	Production Inspector, Grade, Sort, Test	\$11.30
Housekeeping Supervisor, Institutional	\$7.83	Property & Real Estate Manager	\$14.95
Human Service Worker	\$9.86	Pruner	\$11.00
Industrial Machinery Mechanics	\$12.85	Psychologist	\$21.68
Industrial Truck & Tractor Operator	\$11.26	Public Admin, Chief Exec & Legislator	\$12.42
Instructional Coordinator	\$17.01	Purchasing Manager	\$10.29
Instructor & Coach, Sport	\$12.06	Receptionist, Information Clerk	\$7.83
Instructor, Nonvocational Education	\$16.29	Recreation Worker	\$10.87
Insurance Sales Worker	\$18.69	Registered Nurse	\$17.44
Janitor & Cleaner, except Maid	\$8.68	Roofer	\$14.65
Laund, Dry-cln Mach Op/Tnd, exc Pres	\$7.44	Sales Agent, Advertising	\$15.11
Lawyer	\$33.04	Sales Rep, exc Retail, Sci, Related	\$11.72
Legal Secretary	\$14.80	Sales Rep, Science & Related, exc Retail	\$22.76
Library Assistant & Bookmobile Driver	\$9.22	Salesperson, Parts	\$10.82
Licensed Practical Nurse	\$10.91	Salesperson, Retail	\$7.51
Loan Officer & Counselor	\$16.52	Sawing Machine Operator/Tender	\$10.59
Logging Tractor Operator	\$15.48	Secretary, except Legal & Medical	\$10.96
Log-Handling Equipment Operator	\$15.34	Sewing Machine Operator, Nongarment	\$8.06
Machine Feeder & Offbearer	\$8.72	Social Work, exc Medical & Psychiatric	\$15.44
Machinist	\$14.51	Social Work, Medical & Psychiatric	\$16.58
Maid & Housekeeping Cleaner	\$7.24	Stenographer	\$15.16
Maintenance Repairer, General Utility	\$10.93	Stock Clerk, Sales Floor	\$8.23
Marketing, Advertising, Public Rel Mgr	\$24.61	Stock Clerk, Stockroom or Warehouse	\$9.54
Medical & Clinic Lab Technologist	\$18.31	Surveying & Mapping Technician	\$14.79
Medical Assistant	\$10.43	Switchboard Operator	\$10.63
Medical Records Technician	\$10.01	Teacher Aide & Educational Asst, Clerk	\$8.13
Medical Secretary	\$7.99	Teacher Aide, Paraprofessional	\$9.40
Medicine & Health Service Manager	\$16.36	Teacher, Elementary	\$21.39
Millwright	\$16.47	Teacher, Secondary School	\$22.41
Mobile Heavy Eq Mechanic, exc Engine	\$15.34	Teacher, Special Education	\$23.09
New Account Clerk	\$9.88	Teachers, Kindergarten	\$20.07
Nursing Aide, Orderly & Attendant	\$8.60	Tire Repairer & Changer	\$9.14
Operating Engineer	\$19.28	Traffic, Shipping & Receiving Clerk	\$9.48
Packaging & Filling Machine Op/Tend	\$9.65	Truck Driver, Heavy or Tractor-Trailer	\$12.54
Painter & Paperhanger, Constr & Maint	\$12.14	Truck Driver, Light, incl Delivery & Rel	\$13.83
Paving, Surfacing, Tamping Equip Opr	\$17.09	Typist, including Word Processing	\$6.74
Personal Home Care Aide	\$8.49	Vehicle Washer & Equipment Cleaner	\$9.26
Personnel, Train & Labor Relation Mgr	\$18.34	Vocational & Educational, Counselor	\$18.23
Pharmacist	\$29.65	Waiter & Waitress	\$5.64
Physician & Surgeon	\$46.46	Water, Liquid Waste Treat Plant, Sys Op	\$16.52
Pipelayer	\$16.78	Welder & Cutter	\$13.35
Plumber, Pipefitter, Steamfitter	\$21.21	Welfare Eligibility Worker, Interviewer	\$16.70
Police Patrol Officer	\$20.11	Wholesale, Retail Buyer, except Farm	\$14.31
Postal Mail Carrier	\$13.33	Writer & Editor	\$21.13

INCOME

This section deals with income rather than wages, which were discussed earlier and which are only one aspect of income. Data in this section are derived from the U.S.

Department of Commerce, Bureau of Economic Analysis. All income data have been adjusted to 1996 dollars.

Personal Income

Personal income is generally seen as an important indicator of a region's economic vitality. Conceptually, personal income captures all types of income. Wages, salaries, government transfer payments, retirement income, farm income, self-employed income, proprietors' income, interest, dividends, and rent are all included in this measure. Because business and corporate incomes are not included, it is considered personal income.

Dividing the total personal income of an area by the population yields personal per capita income. Per capita income is a useful measurement; it gives a common denominator between income (growth or decline) and population (growth or decline) so that comparisons can be made between different areas or time periods with unlike populations and incomes.

Total and Per Capita Personal Income

Figure 46 indexes inflation-adjusted total personal income to 1970=100 and shows the growth rates for the counties and the state. The period stretching from 1970 to 1996 saw personal income in Chelan County increase from \$600 million to \$1.4 billion in real dollars, an expansion of over 126 percent. Douglas County's income increased even more (by 163 percent) although the numbers are, of course, quite a bit smaller: \$232 million in 1970 and \$611 million in 1996. Dur-

ing the same period, statewide personal income grew by 160 percent.

Per capita personal income in Chelan County grew from \$14,571 in 1970 to \$22,796 in 1996 (*see Figure 47*). In Douglas County the change was from \$13,781 to \$18,732. Because the amounts are adjusted for inflation, the income in Douglas County is actually less than it was as far back as 1975. Both counties kept pace with statewide per capita income until the mid-1970s

Figure 46
Personal Income
Chelan, Douglas, & Washington, 1970-1996
Source: Bureau of Economic Analysis

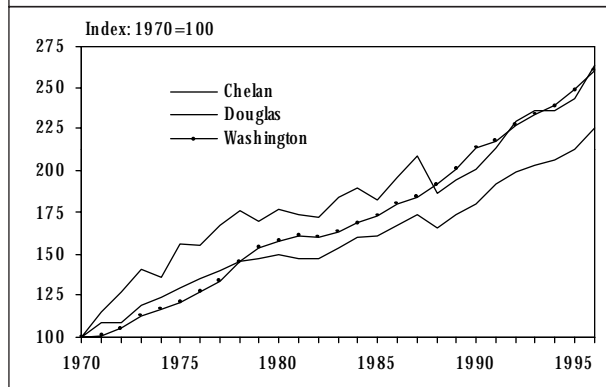
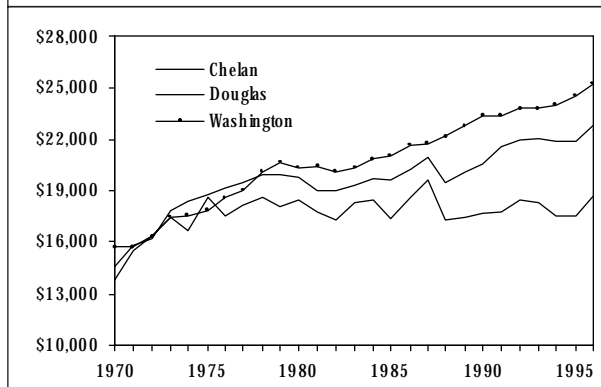


Figure 47
Per Capita Income
Chelan, Douglas, & Washington, 1970-1996
Source: Bureau of Economic Analysis



(Chelan's was actually a little higher), but income generally flattened through the 1980s in both counties while statewide growth accelerated. Chelan County picked up in the 1990s while Douglas remained flat.

The two charts show that total personal income in both counties grew relatively steadily and consistently over the period shown, yet per capita income in Dou-

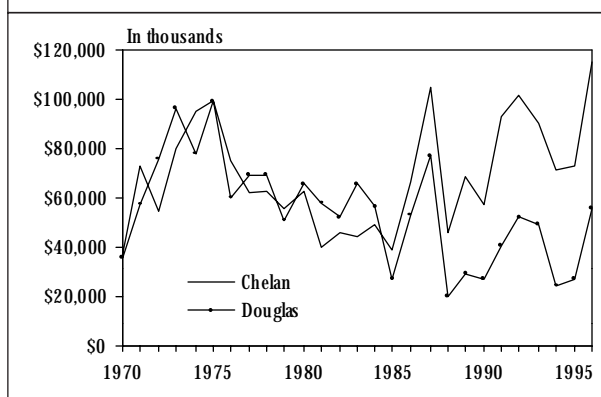
glas County has been flat for quite a few years. The problem is that in Douglas County income growth has not kept pace with population growth at the same rate that has occurred statewide and in Chelan County. While personal income in Douglas County grew slightly faster than it did statewide, its population grew significantly more than the state's.

Farm Income

Because of the predominance of agriculture in the area's economy, farm income is a significant portion of personal income. *Figure 48* traces the rise and fall in farm income since 1970, and, as any farmer would say, the most consistent aspect of it is its inconsistency. It has ranged from a low of \$20 million (Douglas County, 1988) to a peak of more than \$115 million (Chelan County, 1996). The actual dollar value of farm income was quite similar for the two counties until the late 1980s when Chelan County began to register consistently higher levels.

While farm income is important to both counties, it is of far more significance to Douglas than to Chelan. As a percentage of total personal income, it averaged about 7 percent in Chelan County over the years shown, ranging from 4 percent in 1985 to 13 percent in 1974 and 1975. In Douglas County, however, it averaged 14 percent of personal income and went as high as 30 percent in the early 1970s. In the most recent year (1996), it was about 9 percent in both counties and 1 percent statewide.

Figure 48
Farm Income
Chelan & Douglas Counties, 1970-1996
Source: Bureau of Economic Analysis



Components of Personal Income

As mentioned earlier, personal income encompasses many different types of income. All the various types, however, can be subsumed under the three broad categories of earnings, transfer payments, and investment income. Earnings include wages, salaries, and proprietors' income; transfer payments include income maintenance, unemployment insurance, and retirement payments; investment income consists of interest, dividends, and rent. *Figures 49 and 50* show the growth rates of these income streams over time in Chelan and Douglas counties and the other two charts show the share sizes of each in 1996. Earned income has been, and undoubtedly will continue to be, the major source of personal income.

Figure 49
Changes in Personal Income Components
Chelan County, 1970-1996
Source: Bureau of Economic Analysis

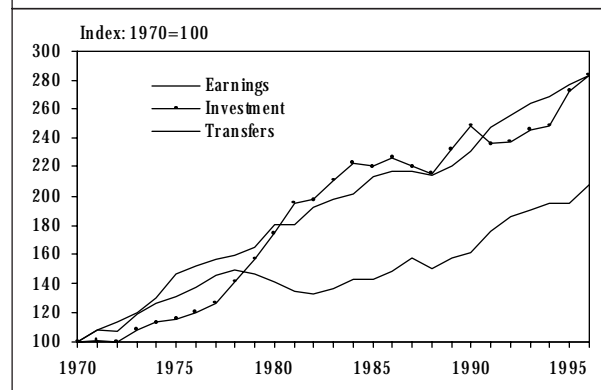
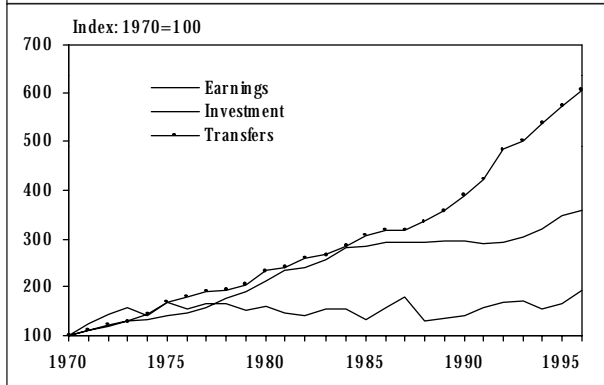
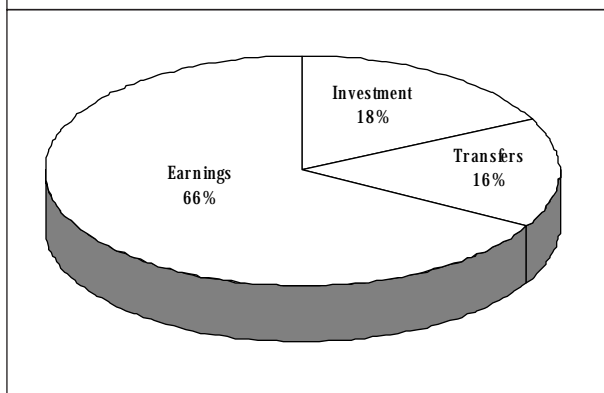


Figure 50
Changes in Personal Income Components
Douglas County, 1970-1996
Source: Bureau of Economic Analysis



However, over the quarter-century in Chelan County, earned income as a percentage of personal income has been shrinking. In 1970, earnings amounted to \$503 million, or 73 percent of all personal income. Even

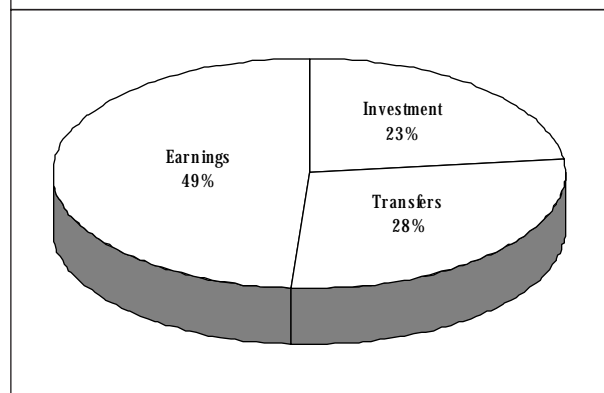
Figure 51
Components of Personal Income
Chelan County, 1996
Source: Bureau of Economic Analysis



though earned income more than doubled since 1970, in 1996 its more than \$1 billion total only comprised two-thirds of personal income. Greater growth in transfer payments is the reason. Transfer payments went from 13 percent of the total to 16 percent and its 1970 total of \$86 million increased 183 percent to \$244 million. Investment income increased its share from 14 to 18 percent. Its 1996 total was \$276 million.

Just about the same scenario occurred in Douglas County, only to a much greater extent. While earnings grew 93 percent, transfer payments grew, incredibly, by over 500 percent. Consequently, less than half of Douglas County's income derives from earnings. The share of earned income fell from 70 percent of the total to 49 percent and transfer payments grew from 13 percent to 28 percent. Investment income grew from 18 to 23 percent of the total, with a 258 percent increase. In 1996 the dollar totals were: earned income, \$229 million; transfer payments, \$131 million; and investment income, \$108 million.

Figure 52
Components of Personal Income
Douglas County, 1996
Source: Bureau of Economic Analysis



Earned Income

The largest portion of personal income is earned income, in both Chelan and Douglas counties. Although its percentage of the total has diminished over the last two decades, it, nevertheless, retains the lion's share of all income. This component of personal income is an important reflection of an area's economy because it shows how much income people derive directly from their jobs. (These data are based on place of work rather than residence—earnings derived from sources outside the county are not included here.)

Earned income includes wages and salaries, proprietors' income, and what is called "other labor income." Other labor income subsumes an assortment of incomes but primarily consists of employer payments into employee pension and health care plans.

In both counties (and throughout the state) the greatest increase among the components of earnings was other labor income; more and more employers are increasing benefits rather than wages and salaries. Chelan County

Figure 53
Changes in Earned Income Components
Chelan County, 1970-1996
Source: Bureau of Economic Analysis

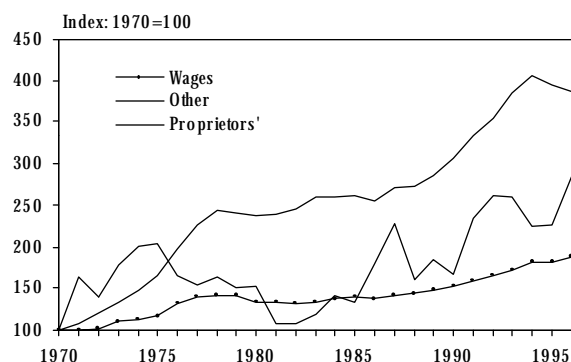
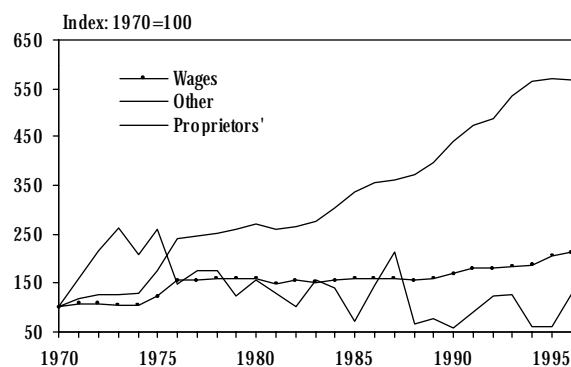


Figure 54
Changes in Earned Income Components
Douglas County, 1970-1996
Source: Bureau of Economic Analysis



saw a 288 percent increase, Douglas a 465 percent increase, and statewide it was 369 percent. Compared to those increases, the real wage and salary gains have been paltry. Eighty-eight percent in Chelan County and 112 percent in Douglas. Proprietors' income increased 186 percent in Chelan, but only 28 percent in Douglas. Much of proprietors' income originates from farm owners.

Wages and salaries have been the slowest growing component of earnings, and earnings have been the slow-

Figure 55
Components of Earned Income
Chelan County, 1996
Source: Bureau of Economic Analysis

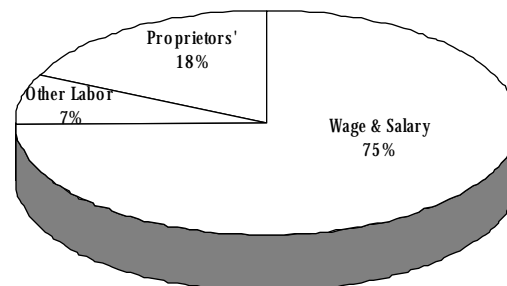
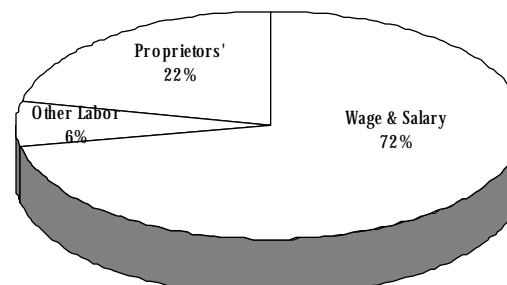


Figure 56
Components of Earned Income
Douglas County, 1996
Source: Bureau of Economic Analysis



est growing component of personal income. However, bear in mind that these are inflation-adjusted figures, and all increases are real ones. Further, wages and salaries in both counties make up about three-fourths of all earned income, so the very large increases in other labor income, for example, are actually relatively small amounts of income.

Transfer Payments

A transfer payment is generally seen as a payment by the government to someone from whom no service is rendered. Transfer payments are second in size after earnings in the composition of personal income, and

have grown tremendously over the last two decades. As shown earlier, transfer payments have been consistently garnering an ever larger share of personal income. The largest portion of the transfers is made up of retirement

and related payments. These include social security payments, federal government civilian and military retirement pay, and state and local government retirement pay. Medicare payments are also figured into this component. *Figures 57 and 58* show the various components of transfer payments and their growth since 1970. In Chelan County, retirement and related payments increased by over 200 percent from 1970-96, giving this component an 85 percent share of all transfer payments in 1996. Douglas County's retirement payments grew by a large 588 percent, representing 90 percent of all transfer payments.

Income maintenance includes Aid to Families with Dependent Children, general assistance, food stamps, and other transfers generally thought of as welfare. In Chelan County, income maintenance grew from 1970's \$9 million to 1996's \$19 million, a 108 percent increase.

Figure 57
Changes in Transfer Payments Components
Chelan County, 1970-1996
Source: Bureau of Economic Analysis

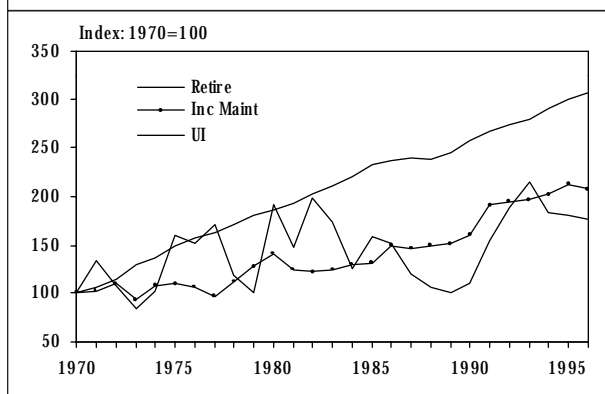
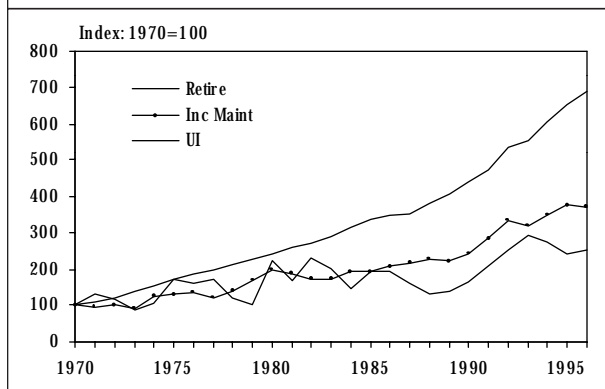


Figure 58
Changes in Transfer Payments Components
Douglas County, 1970-1996
Source: Bureau of Economic Analysis



This amounts to only 8 percent of all transfer payments. Douglas County's grew more, about 269 percent, going from about \$2 million to \$7 million. (For both counties, income maintenance represents only slightly more than 1 percent of total personal income.)

Payments of unemployment insurance form the final component of transfer payments. Unemployment insurance, while it has shown an overall increase over the period in both counties, primarily fluctuates in accordance with the state of the labor force. As unemployment goes up, UI payments go up; as unemployment goes down, so do UI payments. In 1996, these payments amounted to \$16.4 million in Chelan County and \$6.8 million in Douglas County. The amounts will probably be down when the 1997 figures come out. Unemployment decreased in both counties and so should the tallies of UI payments.

Figure 59
Components of Transfer Payments
Chelan County, 1996
Source: Bureau of Economic Analysis

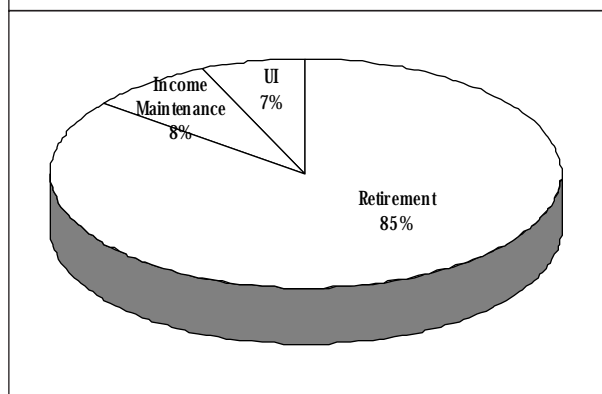
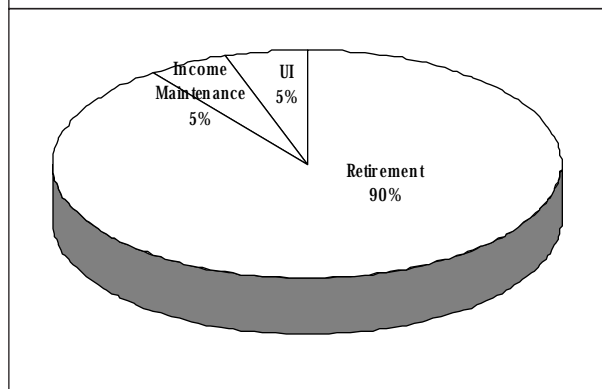


Figure 60
Components of Transfer Payments
Douglas County, 1996
Source: Bureau of Economic Analysis

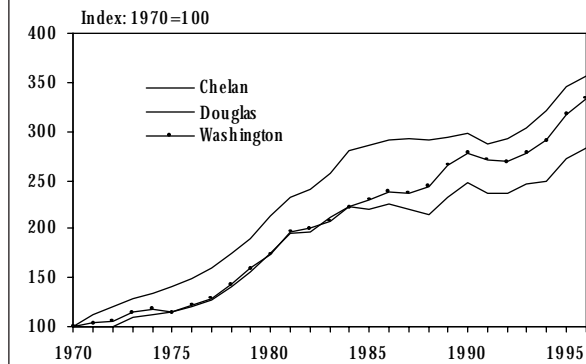


Dividends, Interest, and Rent

These types of income (collectively called investment income), are the prime examples of making money with money. Money which has been used to purchase stocks, bonds, or which resides in bank accounts, or has been loaned, or which was used to purchase rental properties, can return a profit. No service or work is performed, yet income is derived from the invested money. There are, naturally, risks.

Investment income grew by 183 percent in Chelan County, increasing from \$98 million in 1970 to \$276 million in 1996. It represented 18 percent of personal income in the county in 1996, somewhat greater than 1970's 14 percent. In Douglas County, the picture is a bit different: it grew significantly more, 258 percent, while the dollar amount went from \$30 million to \$108 million. And this brought its share of personal income to 23 percent in 1996, up from the 18 percent proportion it held in 1970. Statewide, in 1996 investment income accounted for 14 percent of personal income.

Figure 61
Investment Income
Chelan, Douglas, & Washington, 1970-1996
Source: Bureau of Economic Analysis



JOB TRAINING AND ECONOMIC DEVELOPMENT

Job Training

In a time when the work place is constantly evolving, it is crucial to have a well-trained, versatile work force for economic stability and growth. This ready labor supply translates into not only quality products, but also the feeling of self-worth and independence that a “good” job brings to an individual. In addition to the traditional educational process, a number of initiatives have been undertaken to prepare people for entry into the labor market.

Job Service Center. Operated by the Employment Security Department, the Wenatchee Job Service Center (JSC) provides employment assistance to the residents of Chelan and Douglas counties. The JSC, which is slated to be a Career Development Center by the year 2000, is currently a full-service center offering a wide range of employment services and programs. Provided below is a brief description of some of these programs.

The Wenatchee JSC, in conjunction with three partner agencies: Department of Social and Health Services; Community Trade and Economic Development; and State Board for Community and Technical Colleges, offers reemployment services to Temporary Assistance to Needy Families (TANF) recipients through the *WorkFirst Program*. The JSC focuses on the provision of job search workshops, intensive job search, and placement services. The program goal is to help each TANF recipient move into the work force and become self-sufficient before the federal 5-year limitation on welfare is reached. Counselors are available to provide workshops in job search and to assist with all phases of job placement services. A Resource Room, equipped with PCs, labor market information, and software applications, is provided for WorkFirst clients to assist them with their work search activities.

The *Claimant Worker Profiling Program* in the JSC targets claimants of unemployment insurance to assist and hasten their return to work. Intensive services are provided to these individuals to shorten their duration of unemployment and save costs to the employers and

the trust fund. Individual and group job search assistance, job placement, and job development services are provided.

Trade Adjustment Act (TAA) and *North Atlantic Free Trade Agreement (NAFTA)* are federal programs designed to assist those who have been displaced because of the impact of foreign imports on their industries. Once the closure or reduction is certified under TAA or NAFTA, the displaced workers are eligible for services and benefits to help them prepare for and enter into new employment. Services include retraining, job placement, on-the-job training, and relocation assistance.

The JSC also administers the *Migrant and Seasonal Farm Worker (MSFW)* program. This program focuses on the placement of seasonal migrant workers into non-agricultural jobs. The *Local Veterans Employment Representative (LVER)* and the *Disabled Veterans Outreach Program (DVOP)* provide counseling, career search skills, and extensive job placement assistance to the veteran clientele.

The Wenatchee Valley College Co-location specialist provides a wide variety of on-campus services to dislocated workers who are in training, other students, and the general population. These services include:

- Providing labor market information
- Workshops and classroom presentations
- Employer outreach
- Job development
- Employment counseling
- Job placement

The JSC also operates a self-service Resource Center on site to provide free reemployment services to the general public. PCs are available and equipped with a wide variety of software, including tutorials and proficiency testing, to assist individuals with resume preparation, skill enhancement, and job search. Labor market information, resource materials, self-assessment tools, job announcements, and staff assistance are available.

The Pentad Private Industry Council (PIC), a non-profit corporation, operates the Job Training Partnership Act grants in Service Delivery Area VIII serving Chelan, Douglas, Grant, Adams, and Okanogan counties. These grants are used to train and help place local

unskilled or unemployed workers. Much of the training opportunities are provided on site at the PIC in their Learning Center, which is equipped with PC software for self-paced basic education and GED preparation, assessment, and automated office skills.

Economic Development

The spearhead institution for promoting economic development in the two counties is **Quest for Economic Development**. Quest is a private, nonprofit corporation. Its Board of Directors includes business and community leaders committed to economic development through timely and innovative services and solutions. The Quest staff consists of six full-time employees and provides a number of services.

Business Recruitment. Quest maintains demographic information (see website at <http://www.questncw.org>) and other marketing literature on the Chelan County and Douglas County area, which is distributed to manufacturing, high tech, or other targeted businesses considering expansion/relocation in North Central Washington. This information includes: population history and trends, employment statistics, income levels, traffic patterns, age distribution, educational attainment, community profiles, and industrial site information. Quest has produced comprehensive marketing data showcasing North Central Washington and has also produced a nine-minute video, "Land of Dreams," which highlights the quality of life aspects abundant in the region. In addition to providing an introduction to the area for firms exploring expansion/relocation, Quest can provide:

- Financial assistance
- Industrial site listings and site visits
- Tax incentive information
- Permit and licensing information
- Introductions to community leaders/officials

Consulting Services. Through Quest's Business Development Specialists, individuals and businesses have access to in-depth business consulting services delivered by a team of on-staff business consultants under the auspices of the Small Business Development Center (SBDC). The SBDC is a partnership between Wenatchee Valley College, Washington State University, and the Small Business Administration. Quest's Business Development Specialists will coordinate a team that can assist with:

- Business start-up information
- Business plan preparation
- General business management

- Financial and location analysis
- Business licensing and regulation requirements
- Export, marketing and sales

Business Job Retention and Expansion. Existing manufacturing and processing companies within Chelan and Douglas counties that are threatened with closure or work force reduction or are contemplating expansion can receive direct technical assistance and turn-around consulting services. Quest works confidentially with businesses to diagnose problems and develop strategies for their resolution. Quest will also connect businesses to other specialized private and public resources, which can provide:

- General management advice
- Financial analysis
- New sources of equity capital
- Technology transfer
- Funding for marketing and feasibility studies, or other services necessary to stabilize the business and avert loss of jobs

Financial Assistance. Business projects located in Chelan and Douglas counties that result in job creation or retention may be able to draw on Quest's Revolving Loan Fund.

If a project meets these and other requirements, Quest will determine whether the project can be funded by conventional or non-conventional sources. If a project is determined to be fundable, Quest will assist the business in preparing a custom application (conventional, SBA, State Development Loan Fund, etc.). If the project cannot be fully funded from other sources, businesses may be eligible for "gap" financing through Quest's Revolving Loan Fund.

Chambers of Commerce. The Wenatchee, East Wenatchee, Lake Chelan, Leavenworth, Cashmere, Entiat, Waterville, Mansfield and Bridgeport Chambers of Commerce and the Wenatchee Downtown Association are other area organizations composed of business owners and other interested individuals who work together to further the business interest of their communities.

Infrastructure. The infrastructure of an area is an integral part of its economic development. The following are primary infrastructural elements currently in place in Chelan and Douglas counties:

Roads and Highways. Situated primarily in the southern half of the county are the major thoroughfares through Chelan County. U.S. Routes 2 and 97 provide a link between Wenatchee and Leavenworth—key cities within the county. Those same routes also lead south out of the county to Yakima and the Tri-Cities and further east out of the county to Spokane. State Routes 150, 207, 285, and 971 provide additional access through the southern half of the county.

U.S. Route 2, which runs east and west through the county seat at Waterville, is the main highway through Douglas County. U.S. Route 2 also serves as the main line between Douglas County and the greater Puget Sound and Spokane areas. Other major highways in Douglas County are State Routes 17, 28, 151, 172, 173, and 174. State Routes 28, 151, and 173 combine with U.S. Route 2 to form a transportation network that extends up and down the county's western border along the Columbia River.

Air Transportation. Located in East Wenatchee, Pangborn Field (5,500-foot asphalt runway) is the larg-

est airport that serves both Chelan and Douglas counties. Pangborn Field offers: (1) passenger service with daily flights to Seattle, Portland and Moses Lake through Horizon Air; and (2) cargo service through a number of public and private airports and airfields throughout both counties. They include:

- Lake Chelan Municipal Airport (3,670-foot asphalt runway)
- Cashmere-Dryden (1,800-foot asphalt runway)
- Waterville Municipal Airport (3,060 oiled surface runway)
- Lake Wenatchee State Airport (2,400-foot turf runway)
- Mansfield (2,600-foot asphalt runway)

Rail Service. Two railroads operate in Chelan and Douglas counties. The first one, Burlington Northern's northern tier of the East-West mainline, hauls east to Chicago and west to Seattle. The second railroad, operated by Amtrak provides passenger service again from Seattle to Chicago.

Industrial Land. There are 1,252 acres of land zoned for industrial use in the two-county region. 641 of those acres are fully-serviced and available for immediate development. The remaining acreage is zoned for future industrial development.

SUMMARY

Chelan and Douglas counties, situated in north-central Washington, contain the incredibly fertile fruit growing area just east of the Cascade Mountains. The geographic setting is the primary determinant of fundamental economic activity, which is agriculture. And the predominant agricultural product is apples. World class apples.

With Wenatchee, the principal city in the area, known as the apple capital of the world, the two counties are inextricably linked to the soil. Not only apples, but other tree fruits such as cherries and pears, are grown in abundance; and in the eastern part of the area, wheat is a primary crop.

Employment in agriculture is vast. In 1996, the two counties employed close to 11,000 farm workers on average. About one-fourth of all covered employment in the two-county area is on farms. And, farm income amounts to about 9 percent of personal income in both counties; statewide, the figure is 1 percent.

Total nonagricultural employment in the region was over 34,000 in 1997. These were all nonfarm jobs distributed among the various industrial sectors. The larger sectors were trade (wholesale trade is particularly strong because of the agricultural products), services, and government. These three sectors combined provided more than 26,000 jobs. Manufacturing is relatively small, only 8 percent of nonagricultural employment (throughout the state, manufacturing accounts for 15 percent of the total). In manufacturing, there is important employment in aluminum production and in food processing. Lumber and wood products and printing and publishing were also major industries in the sector. However, the thrust of nonagricultural employment growth has been in trade and services.

Unemployment in regions heavily involved with agriculture is always a problem, and this holds true in Chelan and Douglas counties. Their unemployment rates have historically been above the statewide average. The rates, though, have in general been declining since the severe recessions of the 1980s pushed them skyward. In 1997, Chelan County had 7.9 percent of its work force idle while Douglas County had a 6.4 percent rate. Washington State's

average was 4.8 percent. These rates are the lowest since measurement of each county's unemployment began in 1978. A problem somewhat masked by the annual average rates is the extreme fluctuation throughout the year caused by seasonality of farm work. Monthly unemployment in this two-county area can range from a low of 4 percent to a high of 12 percent or more over the course of the year.

The annual average wage in both counties is quite low by statewide standards. However, it is somewhat of an unfair comparison—the statewide average is driven by the high tech and aerospace industries of the Puget Sound region. Nevertheless, in 1996, the average wage in Chelan County was \$21,071; in Douglas County, \$17,553; and in Washington, \$28,883. Agriculture, trade, and services, the largest industrial sectors in the two counties, are traditionally lower wage industries with large amounts of part-time work which drag down the average wage.

Per capita income, which takes more sources of income into account than just wages, is not skewed as much. Douglas County's per capita income was \$18,732 in 1996, Chelan County's was \$22,796, and the statewide figure was \$25,277. The disparities, though, still suggest a strong difference between rural, agricultural communities and more industrialized urban areas.

The two-county area will continue to be a major agricultural center in Washington. And agriculture in this region is a dynamic and growing industry. In the nonagricultural realm, the services producing industries, particularly in the Wenatchee/East Wenatchee area, will continue to show greater growth than the goods-producing industries. This nationwide trend prevails in Chelan and Douglas counties and there are no indications of change. Tourism has become a significant industry in the area and employs a relatively large number of workers, primarily in the trade and services sectors. The overall outlook for the area is healthy. The average wage, following a 15-year decline, has been on the upswing for several years now. Job growth continues, and unemployment is currently very low for the area.